INFANCY TO ADOLESCENCE: OPPORTUNITIES FOR SUCCESS

HEARING

BEFORE THE

SELECT COMMITTEE ON CHILDREN, YOUTH, AND FAMILIES HOUSE OF REPRESENTATIVES

ONE HUNDREDTH CONGRESS

FIRST SESSION

HEARING HELD IN WASHINGTON, DC, APRIL 28, 1987

Printed for the use of the
Select Committee on Children, Youth, and Families

U.S. GOVERNMENT PRINTING OFFICE
78-779 WASHINGTON : 1988

For sale by the Superintendent of Documents, Congressional Sales Office
U.S. Government Printing Office, Washington, DC 20402

H961-22

SELECT COMMITTEE ON CHILDREN, YOUTH, AND FAMILIES

GEORGE MILLER, California, *Chairman*

WILLIAM LEHMAN, Florida
PATRICIA SCHROEDER, Colorado
LINDY (MRS. HALE) BOGGS, Louisiana
MATTHEW F. McHUGH, New York
TED WEISS, New York
BERYL ANTHONY, Jr., Arkansas
BARBARA BOXER, California
SANDER M. LEVIN, Michigan
BRUCE A. MORRISON, Connecticut
J. ROY ROWLAND, Georgia
GERRY SIKORSKI, Minnesota
ALAN WHEAT, Missouri
MATTHEW G. MARTINEZ, California
LANE EVANS, Illinois
RICHARD J. DURBIN, Illinois
THOMAS C. SAWYER, Ohio
DAVID E. SKAGGS, Colorado

DAN COATS, Indiana
THOMAS J. BLILEY, Jr., Virginia
FRANK R. WOLF, Virginia
NANCY L. JOHNSON, Connecticut
BARBARA F. VUCANOVICH, Nevada
JACK F. KEMP, New York
GEORGE C. WORTLEY, New York
RON PACKARD, California
BEAU BOULTER, Texas
J. DENNIS HASTERT, Illinois
CLYDE C. HOLLOWAY, Louisiana
FRED GRANDY, Iowa

Committee Staff

Ann Rosewater, *Staff Director*
Mark Souder, *Minority Staff Director*
Carol M. Statuto, *Minority Deputy Staff Director*

CONTENTS

Page

Hearing held in Washington, DC, April 28, 1987 1

Statement of:

- Botvin, Gilbert J., Ph.D., associate professor and director, Laboratory of Health Behavior Research, Cornell University Medical College, New York, NY 59
- Garbarino, James, Ph.D., president, Erikson Institute for Advanced Study in Child Development, Chicago, IL 48
- Hamburg, David A., M.D., president, Carnegie Corp. of New York 3
- Kenny, Robert A., Ed.D., associate, Graduate School of Education, Harvard University, Cambridge, MA, and consultant, Joseph P. Kennedy, Jr. Foundation, Washington, DC 67
- Miller, C. Arden, M.D., professor and chairman, Department of Maternal and Child Health, School of Public Health, University of North Carolina at Chapel Hill, Chapel Hill, NC 22
- Price, Richard H., Ph.D., executive director, Michigan Prevention Research Center, University of Michigan, Ann Arbor, MI 80

Prepared statements, letters, supplemental materials, et cetera:

- Botvin, Gilbert J., Ph.D., associate professor and director, Laboratory of Health Behavior Research, Cornell University Medical College, New York, NY, prepared statement of 64
- Coats, Hon. Dan, a Representative in Congress from the State of Indiana and ranking minority member: "Rx for Teen Pregnancy," Newspaper article entitled from the Washington Post, dated March 19, 1987 120
- Garbarino, James, Ph.D., president, Erikson Institute for Advanced Study in Child Development, Chicago, IL, prepared statement of 52
- Hamburg, David A., M.D., president, Carnegie Corp. of New York, prepared statement of 10
- Kenny, Robert A., Ed.D., associate, Graduate School of Education, Harvard University, and consultant, Joseph P. Kennedy, Jr. Foundation, Washington, DC, prepared statement of 71
  - "Community of Caring Evaluation," second year report, dated July 15, 1987 129
  - Synopsis of Major Accomplishments of Community of Caring Programs, dated May 6, 1987 136
  - Review of First Year Accomplishments of Kennedy Foundation Lead Teacher Programs, dated November 20, 1984 140
- Miller, C. Arden, M.D., professor and chairman, Department of Maternal and Child Health, the University of North Carolina at Chapel Hill, School of Public Health, Chapel Hill, NC, prepared statement of 27
- Miller, Hon. George, a Representative in Congress from the State of California, and chairman, Select Committee on Children, Youth, and Families, opening statement of 2
- Price, Richard H., Ph.D., executive director, Michigan Prevention Research Center, University of Michigan, Ann Arbor, MI:
  - Prepared statement of 83
  - Model Prevention Program Abstracts, Task Force on Promotion, Prevention and Intervention Alternatives, American Psychological Association 87

INFANCY TO ADOLESCENCE: OPPORTUNITIES FOR SUCCESS

TUESDAY, APRIL 28, 1987

House of Representatives,
Select Committee on Children, Youth, and Families,
Washington, DC.

The select committee met, pursuant to call, at 9:30 a.m., in room 2257, Rayburn House Office Building, Hon. George Miller, Chairman of the Committee, presiding.

Members present: Representatives Miller, Weiss, Boggs, Boxer, Rowland, Evans, Durbin, Sawyer, Coats, Wolf, Johnson, Hastert, and Holloway.

Staff present: Ann Rosewater, staff director; Anthony Jackson, professional staff; Carol M. Statuto, minority deputy staff director; and Joan Godley, committee clerk.

Chairman Miller. The House Select Committee on Children, Youth, and Families will come to order, for the purposes of conducting an oversight hearing on opportunities for success, from infancy to adolescence.

Four years ago, the Select Committee on Children, Youth, and Families initiated its efforts by highlighting what is known about preventing developmental problems for young children.

Today's hearing, "Infancy to Adolescence: Opportunities for Success," seeks to expand our knowledge of early intervention at several critical points during infancy, early childhood, and early and later adolescence. We are honored today to have a very distingiushed panel to share their thoughts with us this morning.

I'd like to ask them to come forward. We'll hear from Dr. David Hamburg, who is the President of the Carnegie Corporation of New York; Dr. C. Arden Miller who is Professor and Chairman of the Department of Maternal and Child Health at the University of North Carolina; Dr. James Garbarino, who is the President of the Erikson Institute for Advanced Study in Child Development in Chicago, Illinois; Dr. Gilbert Botvin, who is an Associate Professor and Director, Laboratory of Health Behavior Research at Cornell University Medical College, New York; Dr. Robert Kenny who is an Associate, Graduate School of Education, Harvard University; and Dr. Richard Price who is the Executive Director of the Michigan Prevention Research Center at the University of Michigan.

I think we have enough room around the table for you, gentlemen. Thank you very much for agreeing to testify this morning. I look forward to your testimony. We will be joined by additional colleagues of mine on the Select Committee, but I think it is important that we get underway so that we allow enough time not only for your testimony, but also for questions.

As we look at the record of the Select Committee, one of the more successful things we have done with respect to the Congress as a whole, and to the members not only of this committee but also of other committees, has been to try to develop a blueprint of programs of prevention, of intervention, that have now gained acceptance in the Congress. And it's the intent of this hearing this morning to provide additional evidence of potentials for success so that again we can join your testimony—the evidence that you will present, the suggestions that you will present—with the policy considerations being undertaken by the Congress this year and next. What we have found is that that has been a rather successful partnership both in changing some of our thinking (if you can imagine that) and also, more importantly, in develping some public policy considerations that we might not otherwise have made.

OPENING STATEMENT OF HON. GEORGE MILLER, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF CALIFORNIA, AND CHAIRMAN, SELECT COMMITTEE ON CHILDREN, YOUTH, AND FAMILIES

Four years ago, the Select Committee on Children, Youth and Families initiated its efforts by highlighting what is known about preventing developmental problems for young children. Today's hearing, "Infancy to Adolescence: Opportunities For Success," seeks to expand our knowledge of early intervention at several critical points during infancy, early childhood, and early and later adolescence.

The concept of prevention, and of enhancing children's development wherever possible, is deeply embedded in our notion of childrearing. Every parent wants to keep children from getting sick, to make sure that they are well fed, and to foster their intellectual development.

It is impossible to prevent all the misfortunes of growing up for any child. Yet we are constantly reminded by the evidence that intervening early is the surest means to keep children healthy and prevent the easy cases from becoming the tough ones:

It is easier to ensure a healthy pregnancy and birth than it is to care for a low birthweight or premature baby.

It is easier to educate than to re-educate.

It is easier to train than it is to re-train.

We know that investing in prevention is more humane for children, and more likely to enhance family stability.

We know as well, from the standpoint of social policy, that investing in prevention also returns public funds to the federal treasury.

What we continue to find out is that there are more opportunities for success than we, as a society, are taking advantage of. Scientists, physicians, and educators are continually making advances in our knowledge about infants, about children in their school-age years, about teenagers.

The renowned experts who will testify today will present state-of-the-art findings about how to prevent damage to children and how to ensure their wellbeing. They will tell us those areas where the consensus of research is clear, and where public policy should reflect that consensus. And they will tell us the kinds of questions about childhood and adolescence that need further research before a consensus can be reached.

They will also tell us that in some areas where we know what works, this nation falls far behind other Western industrialized nations, some much poorer than our own, in making the investments necessary to ensure success.

Their testimony will add measurably to what we know from research about the type of preventive interventions that are most successful. But there are other questions that research alone cannot answer—questions of resources, of implementation, of access and of equity. These are questions that reflect how much we are willing to apply our knowledge to benefit all children and families—questions that we as policymakers must answer ourselves.

Chairman MILLER. So, Dr. Hamburg, welcome. You gave help to the Committee from the beginning, and again, I appreciate your taking your time to come and share your thoughts with us.

Your written statements, and some of you have appendices and exhibits, will all be included in the record in their entirety. You may proceed in the manner in which you are most comfortable.

STATEMENT OF DAVID A. HAMBURG, M.D., PRESIDENT, CARNEGIE CORPORATION OF NEW YORK

Dr. HAMBURG. Thank you very much, Mr. Chairman. I'm delighted and honored to be back here again. I think this Committee has made an outstanding record, and really stimulated the Nation to get children, youth and families higher on the national agenda, and I'm very glad that you are focusing on successes in and opportunities for preventing serious damage to children, because there is a lot that can be done.

During my term as President of the Institute of Medicine, I had occasion to look into virtually every aspect of medicine and public health and I came away from that five-year period feeling that the building blocks of early life are really the most crucial considerations of the entire health domain.

And since I've been at the Foundation these past four years, I have had that viewpoint augmented by the immense importance of early success and opportunity in health and education, and in fact, the two are closely linked.

Let me say at the outset very briefly what I see as some central concepts of my perspective, and I think one which is shared with my colleagues here this morning.

The early years, the first years of life, can provide the basis for a long, healthy lifespan. Early preventive intervention tends to be exceptionally cost-effective. Health and education are closely linked in the development of vigorous, skillful, adaptable young people. Investments in health and education increasingly can be guided by research in the biomedical and behavioral sciences in ways likely to prevent a lot of the damage we have been inadvertently doing to our children and adolescents. And if we can take advantage of that growing knowledge in effective preventive intervention, it will be quite a contribution to a flourishing U.S. economy and society in the future.

That's the essential set of ideas.

Now, I'd like to spell it out just briefly by way of an overview, and my colleagues can go into greater depth on a number of key issues.

Let me briefly state a few of the valuable or very promising ways of preventing damage to children and adolescents in our country and, for that matter, worldwide: early prenatal care, prolonged breast feeding, adequate nutrition for mother and child, immunization (preferably early), early education of the Head Start variety (preschool, age three to five); oral rehydration for diarrhea, judicious use of antibiotics, broad community education for disease prevention and health promotion, social support networks for health and education.

Research, specifically on interventions, has been augmented greatly in recent years by a number of longitudinal studies that help us to clarify the relationship between risk factors and later outcomes, and that in turn helps us fashion guidelines for preventive action.

Now, a quick word on infancy. Dr. Miller no doubt will have more to say about prenatal care. That seems to me an exceedingly important subject—early, high-quality prenatal care, as a means of ensuring healthy development for children, bearing in mind that most organ development takes place in the first few months after conception. And that is a time when a lot of crucial things are happening, for instance, when drugs, alcohol, cigarettes, or other toxic substances can cross the placenta from the mother and cause irreversible damage, including damage to the brain.

When I was in medical school a while back, we spoke about the placenta as a barrier. But it turns out not to be much of a barrier. There are many small molecules that can pass it and can do damage to the growing fetus.

So it's very important for a woman to know when she's pregnant. We need wide availability of simple, inexpensive means for detecting pregnancy early, and to move in quickly with meaningful education for women about how they can care for themselves and for their growing fetuses.

There are studies showing that, for example, women who reduce smoking or preferably stop smoking during pregnancy improve the birth weight of their babies. The Institute of Medicine study on low birth weights was a landmark in the field. In view of the rising number of women smokers, and the use of alcohol in early pregnancy, it is a crucial matter to educate pregnant women and about-to-become pregnant women.

And part of that is to get the health professionals more actively engaged in these matters. There is an upsurge of interest that needs to be reinforced so that it's not a neglected subject on the agenda of health professionals who come in contact with women in the reproductive years.

Similarly, a good deal is being learned about what constitutes adequate nutrition during pregnancy. It is possible to prevent a number of nutrition-related problems in development, such as Vitamin A deficiency, iron deficiency, calcium deficiency. And there is a great deal we can do through nutritional supplements, through simple primary health care and through education of mothers.

The Federal Supplemental Food Program, the so-called WIC program, has been shown to be remarkably cost-effective. A study conducted at the Harvard School of Public Health showed that for every dollar that's invested in the program, three dollars will be later saved in medical costs, and such savings are typical of prenatal preventive care, as compared with the high cost of intensive care of so many premature or low birthweight babies.

A 1985 evaluation of the WIC program supported by the Department of Agriculture found that the program reduced the fetal death rate by almost a third, reduced by somewhere between 15 and 25 percent the number of premature births among high risk mothers, improved the likelihood that children will have a regular source of medical care and be better immunized, and improved the cognitive development of the children. So here is a piece of public policy that has clearly been working for the benefit of the growing child.

Immunization is a field where we've had great and dramatic success, I suppose most pointedly in the case of polio, but also in many others. And clearly, judging from the current research, there is a lot more to come. Recent studies at the Institute of Medicine show very clearly that there are many immunizations that can be developed in the next decade if we make the investment, that have worldwide significance, for example, dealing with strep infections that have many ramifications to the developing child. There's lots we can do, and yet we have to be sure we make the adequate investments so that they come to pass. Moreover, they must actually be used. It's no good to have them on the shelf; they have to be used, and particularly in poor communities where there is a problem, a huge problem in the developing countries and still a substantial problem in our own country, particularly before kids get to school.

A word about parent-child relationships early in life, a crucially formative time, and the promotion of attachment and good parenting. The attachment of infant to mother has been a significant and indeed crucial biological mechanism for millenia in human adaptation and in related species where the young are born quite immature and require a great deal of protection when they are growing up.

During that time, permanent damage can be done by neglect or abuse. There is a lot of opportunity for reversibility later. But still, some permanent damage can be done early. It's very important to prevent that, and it's possible to prevent it. The parenting caregiver has an immense amount of responsibility early in life and therefore, needs to learn a lot about how to deal with a young child. Much of that was done in the context of a cohesive nuclear family and an extended family traditionally. Given the disruptive circumstances of modern times, we have to take more deliberate steps, again, particularly in poor communities, to see to it that the caregiver really does learn how to do what a good parent must do and gets the support necessary, particularly in time of stress, to cope with the inevitable difficulties of raising a young child.

Parenting can be taught to expectant mothers and new mothers. It is possible to construct mutual aid and self-help groups even in poor communities around institutions such as churches.

Our foundation, for example, has an initiative with black churches, one effect of which is to strengthen parent education and parent support groups in poor communities. Such institutions can also foster primary health care of a very basic kind and can construct social support networks for young parents under stress.

Interventions in these crucially formative first few years can have lifelong beneficial consequences.

Now a point or two about childhood. Our foundation has from the beginning been very active in Head Start and similar early education, and therefore we take a special interest in it.

We believe the evidence now shows from 20 years of follow-up studies profound potential for building strength through the Head Start type of intervention at age 3 to 5, high quality preschool education, potential not only for educational outcomes but for health outcomes and some social outcomes as well.

There is a broad base of healthy development that can to a significant degree be fostered—not ensured, but fostered—by high quality Head Start type experience. This is especially true for disadvantaged youngsters, because it comes against their rather impoverished background of experience. Therefore, the intervention is a very valuable one.

These careful longitudinal studies over 20 years show us what this type of preschool program can do. In the intervening 20 years, events have provided a more powerful stimulus for addressing high quality early education and child care because we have so many more women in the work place. It is a remarkable change that so many women now work both at home and in the labor force. We know how to do very useful things at this age but still only about a quarter of the poor children who need this kind of intervention are actually getting it. The issue is how to make it more widely available.

We are also turning our attention in this country to prevention of injuries. We didn't quite appreciate until lately that the major health hazards of American children no longer stem from disease in the classical sense but from injuries, both accidental and intentional. This is an increasing source of long-term disability among children and adolescents—falls, burns, poisonings, motor vehicle accidents and so on. And there is a search now to find better ways for preventive interventions: through educating parents, educating caretakers, health professionals and children themselves, and also by using environmental protection, such as infant car seats and seat belts. This work is still early, but there are promising developments again, such as parent self-help support groups, to address these kinds of questions. Overall, we've got to give it more serious and sustained attention in our research agenda as well as in service innovations that are evaluated. In the schools, in schools of medicine and public health, in state departments of health, and the United States Public Health Service I believe we see a tendency to move this subject up on the national agenda, to diminish serious injuries to children and adolescents.

A word about adolescence, an absolutely critical time for preventive intervention, very much neglected until recent years. It is a time of immense biological and psychological change. The transition of puberty is one of the biggest biological transitions of a lifespan. It coincides roughly with a drastic change in the social environment, that is moving from the small elementary school to a large and very different junior high or middle school. It's a stressful time, a time in many ways characterized by exploratory behavior in which the young person tests out all kinds of new possibilities. But the way things are now, that means testing out at age 10 or 11 or 12 or 13, smoking cigarettes, marijuana, using alcohol, using other drugs, driving motorcycles or automobiles, trying out various habits of food intake and exercise, trying out different patterns of human relationships, including those involving high-risk pregnancy, even school-age, preteen pregnancy, and sexually-transmitted diseases, now including AIDS. And the AIDS situation has to be a powerful stimulus for us to think about how can we do better in terms of preparing adolescents for adult life.

So this is a formative time, while these behaviors are being explored, while they are still tentative, before they are cast in concrete. It's a crucial opportunity for preventive intervention, to change behavior for health, to shape behavior toward health-promoting directions.

It's also a crucial period for educational success which right now is kind of a battle zone, both for students and for teachers at the junior high level.

Are there some useful things to be done? I believe there are. You wlll hear more from Dr. Botvin and others about that. For example, the peer-mediated programs are very promising, have to some extent been evaluated. These are programs in which slightly older peers, say from one to three years older, with some training and continuing supervision can facilitate learning pertinent to health, learning pertinent to future educational achievement and indeed coping with the dilemmas of adolescent development.

There have been a number of studies on smoking prevention that have been carried out in this country and in Canada in junior high school settings where, it turns out, there's been not only a decrease in smoking, but also a decrease in use of alcohol and marijuana. So we have to give very high priority to research to see how far that can go with other drugs, with illicit drugs, and also how far that can go into poor communities. So far, most of that research has been done in middle class communities.

There are other interventions, just to mention in passing, that deserve our sustained attention because they can be helpful to adolescents.

One is to provide in some attractive and convenient ways, often related to academic programs, service in the community which, among other merits, would tend to build basic employability skills if built in at the junior high middle school level and continued with thereafter.

Another development of great interest is comprehensive health care clinics either in school sites or near schools; in other words, school-related clinics that are indeed comprehensive, that address the set of concerns and vulnerabilities of adolescents. It's very promising in my view.

A third approach we need to consider is broad-based community education (including media) as a means to prevent drug and alcohol abuse among the young, building on the lessons of the outstanding cardiovascular disease prevention work that's been done with midlife adults and translating that back to adolescents.

And another kind of intervention we've got to consider is how to strengthen family life and particularly human biology courses at the junior high, middle school level. Understanding how the human body works and how to care for the body, education that leads into a disease prevention and health promotion orientation under the rubric of good science in human biology, bringing modern biology to bear on early adolescent development.

That leaves me to say just a word about science education more generally.

The way science and technology are transforming the economy, we will have to have a more skilled and flexible work force in the future than we've had in the past and that implies a firm base in precollegiate science education, not only for topflight scientists and engineers, but also for the rank and file work force. It is also important for responsible participation as citizens on issues involving disease prevention, involving environmental pollution and other matters that have some technical content.

So there are a variety of reasons why we've simply got to address precollegiate science education. And one of the ways to do that is to connect the science-rich sector of the society—that is, where the scientists are, the strengths in universities and colleges and national labs and in corporate labs—with the elementary and secondary schools, which are science-poor at the present time.

We are coming to a time when we will have a smaller cohort of young people, as you well know, say by the turn of the century; and a larger proportion of that cohort will be minorities who have traditionally been out of science education and indeed out of the mainstream of education. And it's a straightforward matter of national interest, over and above equity considerations. We're going to have to find practical ways to achieve competence in science education and technical matters and education generally for that young cohort.

There are a lot of innovations that are alluded to briefly in my text about preventing school dropout where we are having a disastrous casualty rate in the urban areas, certainly the inner cities and the poverty concentration areas. It's about half in some of those poverty concentration areas who don't graduate from high school, and that is a very dangerous situation.

There are interesting innovations to address that problem. Some of them are peer mediated, some of them involve summer programs for disadvantaged students. Some of them involve computer based educational innovations. Some of them involve linking school experiences with work experiences and incentives for staying in school through work opportunities. We need more systematic research on these interesting innovations to learn how to diminish the very serious dropout rate.

In order to pursue some of these opportunities we have created the Carnegie Council on Adolescent Development. I won't go into that except to say that two of your distinguished colleagues in the House are active members of the Council, Congressman William Gray and Congressman James Jeffords. They have been contributing to this body, and I'd be happy to say more about it. It's meant to be a stimulating and guiding body to make a lot of things happen in the nation with reference to the opportunities that exist for fostering healthy adolescent development.

In closing, let me say that I think what we are discussing this morning is not only intrinsically important but in a way is part of a wider social context of immense significance.

The drastic transformation that the 20th century has brought, and is accelerating even further, in some ways makes growing up more complicated than ever before. There is no reason at all to think that the young people today are less talented, have different genes, have less capability than we had or our predecessors had.

But growing up now is in some ways very complicated for a lot of reasons. One is that there is such easy access to so many pleasurable substances and activities that turn out to be very dangerous. Another is that it's hard to know even what your parents do, what the adult world is like or what you're going to have to prepare for. You're hitting a moving target. It's clear that you have to prepare more and more for change itself. There are going to be transitions. You have to learn and relearn and relearn so that lifelong learning is no longer some kind of luxury but it's really becoming an economic necessity. Parents are puzzled about what life will be like for their children and thereby have somewhat less authority in the developmental process. The media influences are pervasive, in some ways positive, in some ways negative. So it's a complicated and in some ways difficult time for development. In the scientific and scholarly community, in the policy community, in the leadership of the country, we really have to learn as quickly as we can about what the circumstances of development now are and what it takes in the contemporary different sort of environment for young people to learn to survive and flourish and create. If we could understand their circumstances of development better in this rapidly changing world, we could help to shape a more humane and compassionate society altogether.

Thank you, Mr. Chairman.

Chairman MILLER. Thank you very much.

[Prepared statement of David A. Hamburg follows:]

PREPARED STATEMENT OF DAVID A. HAMBURG, M.D., PRESIDENT, CARNEGIE CORP. OF NEW YORK

Most children in affluent countries grow up healthy and reasonably happy. Yet even in the favored sectors of such societies, there is much perplexity about the fate of children and especially adolescents. Gross casualties among the young are evident in the high incidence of disease and disability, of ignorance and prejudice, of failure and humiliation, of hatred and violence. While many causes underlie the developmental problems of the young, the most profound and pervasive exacerbating factor is poverty. Almost every form of childhood damage is more prevalent among the poor--increased infant mortality, gross malnutrition, recurrent and untreated health problems, child abuse, educational disability, low achievement, early pregnancy, alcohol and drug abuse, and failure to become economically self-sufficient. While recognizing that this is the case, much can be done by specific interventions while concomitantly tackling the general problem of poverty.

During the past decades, careful inquiry by biomedical and behavioral scientists have made it possible to devise many effective ways of preventing damage to children and adolescents worldwide. Early prenatal care, breastfeeding, adequate nutrition, immunization, early education, oral rehydration, judicious use of antibiotics, community education,and social support networks for health and education are a few important interventions that have been effective. Other new research, including a number of longitudinal studies, has helped to clarify the relationship between risk factors and later outcomes. It is possible now to fashion clear guidelines for preventive action by putting together what we know about risk factors and antecedents with interventions that are proven or promising for each developmental stage, from before birth through adolescence. Some interventions that have worked to prevent damage and promote healthy development follow.

INFANCY

Prenatal Care. Development of the human infant starts at conception, although the nature and extent of a child's vulnerability to environmental influences derive in part from factors present before conception: the mother's age, general health and nutritional status, education, lifestyle and habits, and the socioeconomic circumstances of both father and mother.

Early, high-quality prenatal care for pregnant women is essential for ensuring healthy development in children. The failure to take preventive measures long before a child is born is reflected in infant mortality rates and in babies born too soon or too small, and subject to many health and development problems.

Most organ development takes place in the first eight weeks after conception. This is a time when drugs, alcohol, cigarettes, or other toxic substances can cause irreversible damage to the organs, including the central nervous system. For example, transmission of human immunodeficiency virus (HIV) from an infected mother to her infant probably occurs during pregnancy or delivery, but the nature of maternal-infant transmission is not known. The provision of simple, inexpensive means of early detection of pregnancy, together with meaningful education, so that prospective mothers can maintain adequate nutrition, hydration, and self-care, would go a long way toward preventing some of the worst harms to fetal development.

Women who reduce or stop smoking during pregnancy, for example, improve the birthweight of their babies. In view of the rising number of women smokers and the promise of smoking cessation interventions, vigorous efforts are in order to enlist health practitioners in anti-smoking efforts and to make such efforts a routine part of medical and obstetrical care.

Lack of adequate nutrition, especially during pregnancy, has many ramifications. Prevention of nutrition-related problems, such as Vitamin A deficiency, can be assured through nutritional supplements, primary health care, and education. The federal supplemental food program for women, infants, and children (WIC) has been one of the most cost-effective programs in the United States. A study conducted by the Harvard School of Public Health showed that for every dollar ($1) that is invested in the program, three dollars ($3) is later saved in medical costs. A recent (1985) evaluation of the WIC program by the U.S. Department of Agriculture found, for example, that the program reduced the fetal death rate by almost a third; reduced by 15-25 percent the number of premature births among high-risk mothers; improved the likelihood that children will have a regular source of medical care and be better immunized; and improved the cognitive development of children.

Immunization. After birth, the most effective and cost effective preventive measure is immunization against the common infections of childhood and their sometimes disabling complications. Great progress has been made on this front, especially with childhood diseases such as diphtheria, whooping cough, tetanus, poliomyelitis, measles, mumps, German measles, and now chicken pox. Yet large numbers of preschool children are not adequately vaccinated against the preventable infections of childhood. These children provide a susceptible reservoir for an epidemic should the infectious agent be introduced. Current scientific advances in immunology as well as molecular and cellular biology make it clear that additional vaccines will become available in the foreseeable future. To ensure their effective use with children everywhere will be no easy task, but efforts must be made.

Promotion of attachment and good parenting. The attachment of infant to mother (or other consistent caregiver) and more broadly to a primary group (usually the immediate family) has long been a biological mechanism for survival in human and other species whose young are born very immature. The long-term effects of poor early attachment are not completely understood, but the weight of evidence so far is that good later experiences can, to a large extent, overcome poor early experiences. Yet permanent damage can be done by early neglect or abuse. The adult in the consistent caregiving role thus has formidable responsibilities and needs appreciation, encouragement, and opportunities for learning how to deal with a young child.

Overstressed, very young mothers often have serious difficulty in accepting and caring for their children, particularly in meeting the children's attachment needs in an enduring way. But parenting can be taught to expectant and new mothers. Self-help and mutual aid groups are not widely available in very poor communities, but they can be built on institutions such as churches. During the past decade, we have learned about interventions to enhance the mother's capability. Elements of these interventions are: (1) parent education; (2) appropriate infant stimulation; (3) home visitors; (4) nutrition education and supplementation; (5) primary health care for mother and child; (6) connecting young families to community services; and (7) social support networks for young parents under stress. Such interventions can make a difference in the crucially formative first few years.

CHILDHOOD

Early education. Early education and child care have profound potential for ameliorating a variety of academic, health, and social problems experienced by children. Once in place, high-quality early education and child-care settings for children ranging in age from three to five years can become an important site for education about child injuries and a place where new models of language instruction or of better development of quantitative skills in disadvantaged youngsters can be fostered. That is, many useful developmental purposes can be served. Over 20 years, the convergence of evidence from a variety of longitudinal studies, including the Perry preschool and Head Start evaluations, is highly significant. Children who have received educational and other services in the Head Start preschool program demonstrate improved academic and learning achievement. Overall, a powerful stimulus for high-quality early education and child care is the revolution in the workplace. Most women now work in both the home and the labor force. The issue now is how to make such high quality child care and early education more widely available.

Prevention of injuries. It is not widely appreciated that the major health hazards for American children no longer stem from disease but from injuries--both accidental and intentional. Injuries account for half of all deaths in children. They are a major and increasing source of long-term disability and illness among children and adolescents. The major unintentional injuries include falls, burns, poisonings, and motor vehicle accidents. Most of these tragic events are preventable by educating parents, caretakers, health professionals, and children; also by using environmental controls such as infant car seats and seat belts.

In the case of child maltreatment--intentional injuries--certain factors appear to be consistently important. These include: a high level of stress among parents or parent surrogates, social isolation, a general tendency toward aggressiveness in human relations, or parents having been abused as children themselves. Effective preventive efforts have taken the form of parent education about child development and parenting behavior, counseling, parent self-help support groups, crisis centers with protective day care, and home visitor programs. There also have been some attempts to promote stronger early attachment to infants by mothers at high risk of abusing their children.

ADOLESCENCE

The onset of adolescence is a critical period of biological and psychological change for the individual. For many, it involves drastic changes in the social environment as well; for example, the transition from elementary to secondary school. These years (10 to 15) are highly formative for health-relevant behavior patterns, such as smoking of cigarettes, the use of alcohol and other drugs, the driving of automobiles and motorcycles, habits of food intake and exercise, and patterns of human relationships including high-risk pregnancy and sexually transmitted diseases. Before health-damaging patterns are firmly established, there is a critical opportunity for preventive intervention.

Peer-mediated programs. There are lessons that can be learned from recent innovations and concomitant research in various parts of the world. For example, successes in changing behavior for health have been reported by several peer-based smoking (cigarettes and marijuana) prevention programs for adolescents, where the skills of resisting peer pressure and other coping skills pertinent to major tasks of adolescent development are taught. Studies on smoking prevention that have been carried out in the United States and Canada in junior high school settings have shown that there is not only a decrease in smoking, but also a decrease in the use of alcohol and other drugs.

Other interventions. Various approaches have the capacity to foster healthy adolescent development. These include: (1) constructive activities for adolescents in the community in the spirit of public service and building basic employability skills; (2) comprehensive health care clinics for adolescents in or near senior and junior high schools; (3) broad-based community (including media) education as a means to prevent drug and alcohol abuse among the young; (4) family life and human biology courses in the junior high/middle school curriculum.

Science education. Many studies show that investment in education, research and health all tend to increase economic productivity. The economy of the future will require a more skilled and flexible workforce than we have now. This implies a firm science base in precollege education, not only to produce top-level scientists and engineers and a technically sophisticated labor force, but also to have educated citizens who can participate effectively in a technical world on problems such as nuclear weapons and environmental pollution. The nation cannot long afford the waste of talent that is now occurring, especially in the inner cities. School, youth employment, and community agencies have developed innovative programs to prevent school dropout. Among the remedial approaches that deserve careful scrutiny are peer tutoring models; summer programs for disadvantaged students and slow learners; alternative schools; computer-based remedial education; youth employment and training programs; projects linking school and work to the community; and Cities in Schools (a program that coordinates education and social services for each at-risk student). Systematic research on these interventions is needed and could be very useful in guiding improvements.

The Carnegie Council on Adolescent Development. The Carnegie Corporation of New York has launched a new venture, the Council on Adolescent Development, to bring together national leaders from different sectors of American society in an integrated way. It will try to promote useful links between the health, education and social service sectors, and provide a factual basis for wise policies bearing on adolescent development. The Council will take stock of existing interventions and stimulate new ones to reduce the number of serious casualties in adolescence, and to help young people make a more successful transition to adult life.

Social support networks. To some extent, most of the interventions mentioned above can be viewed as building upon social support networks. They involve a mutual aid ethic, shared aspirations, a pooling of information and of coping skills--all oriented towards producing good outcomes and preventing damage, particularly in times of transition, such as infancy and adolescence.

For millenia we took such social support networks for granted when most of us lived in small, familiar societies. With the drastic transformation occurring in recent decades, we can no longer take them for granted. Now, where they are lacking or attenuated, we need to devise ways to strengthen or create social support networks that foster health and education. The talent pool of volunteers for this task can be found in communities, for example among retired people who are still vigorous and themselves at risk of boredom, isolation and even resentment of younger people. The challenge is to build social support networks in novel ways through institutions such as churches, schools, and community organizations.

CLOSING COMMENT

Fundamentally, the processes of learning have made human evolution possible. The long period of immaturity in growing up makes us singularly vulnerable in the early years of our lives. And yet these years offer unparalleled opportunities for learning whatever is essential for survival and reproduction--provided that adequate protection and guidance are available during the time of growth and development. There is not the slightest reason to believe that today's young people are less talented or resourceful than their predecessors, but their circumstances are considerably different and so too their tasks and obstacles. To help them learn what they need to know to survive, flourish, create, and prepare adequately for adult life, we have to understand these circumstances, tasks, and obstacles. In the process, perhaps we can shape a more humane and compassionate society.

Chairman MILLER. Dr. Miller.

STATEMENT OF C. ARDEN MILLER, M.D., PROFESSOR AND CHAIRMAN, DEPARTMENT OF MATERNAL AND CHILD HEALTH, SCHOOL OF PUBLIC HEALTH, UNIVERSITY OF NORTH CAROLINA AT CHAPEL HILL, CHAPEL HILL, NC

Dr. MILLER. Thank you, Mr. Chairman.

I appreciate the opportunity to give testimony before the committee. The purpose of my testimony is to summarize the findings of an analysis of Western European countries that seem to be doing a better job than the United States in preventing deaths and disabilities as a result of the care of pregnant women.

For two or three decades if not longer, comparisons have been made pointing out that many countries in Western Europe have a more favorable infant mortality rate than the United States.

I want to emphasize that the mortality rate is more than a sentimental concern about dead babies. It's a proxy measure for a whole host of morbidity and learning disabilities that exist in later years as a result of surviving children frequently born with low birthweights.

Even though we have known for some years about our poor performance record, there have not been many analyses of exactly what it is European countries are doing differently from what we're doing. The analysis that I present was one done on ten European countries under the support of a Fulbright grant last year. The countries include Belgium, Denmark, France, Federal Republic of Germany, Ireland, Netherlands, Norway, Spain, Switzerland and United Kingdom.

Excluded from study were all of those countries that have monopolistic systems of health care. The list that I read to you are all countries that have a significant private and voluntary sector to their services, where there is ample choice of different kinds of provider systems for pregnant women to receive care. Those are all countries that have better infant mortality rate. And I think that is remarkable when you observe that it includes countries such as Ireland and Spain. They are not countries that ordinarily we compare ourselves with in considering standards of living. They both have enormous poverty problems. They both have infant mortality rates that are better than the United States.

I want to say a word about the population mix in those countries, because often when these comparisons are made people point out that the heterogeneity of the U.S. population makes problems here so much more difficult.

That perspective I think is weakened by an awareness of what's gone on in Western Europe since World War II, with enormous immigrations from former colonies, from the Middle East and from North Africa. For example, in Amsterdam, during the past five years, 44 percent of the newborns have been born to foreign-born mothers, many of them Suranamese and Indonesian.

Our study devoted a great deal of attention to the birth records of the immigrant and foreign born populations. And without elaborating in detail on this occasion, I would emphasize that their pregnancy outcome results are also superior to ours.

The record of low birth weight in all of those countries is impressive. The proportion of babies born at low birthweight in many of the countries is now down to 4 percent, contrasting with about 6.8 percent in this country, and for minority populations about 12 percent.

Population density is a matter of interest. Once again, these comparisons are sometimes discounted on the basis that dispersal of the U.S. population makes our delivery systems more difficult.

There are models in Europe that are useful in addressing that problem. For example, Norway. The Norway population is widely dispersed among many isolated communities. And yet the record of the participation of pregnant women in prenatal care varies no more than between 10 and 14 visits in all parts of the country. They do such ingenious things as assuring that every pregnant woman who lives in a remote part of the country, is reimbursed for all expenses to move to an area where there is a hospital for a period 10 days prior to expected delivery and all of her living expenses are financed during that period.

I think the study results are ample to suggest that one can achieve superior pregnancy outcome both in areas of metropolitan congestion and in areas of widely dispersed rural populations.

The most remarkable difference in the demographics of the ten countries that we studied as compared to the U.S. is the age specific fertility rate. In those countries, the proportion of teenagers who bear children is much lower than in the United States, and all during the 1970's their fertility rate for teenagers dropped dramatically. Ours did not drop very much and ours is about twice theirs.

That matter has been reviewed by many people but what interested me most about the European countries is that the 1970's, when their teenage fertility rates dropped most dramatically, was precisely the period when most of the countries had energetically expanded their financial and service benefits to pregnant women, leading no one to the conclusion that teenagers bear children in order to take advantage of those financial benefits.

Another feature of the countries that is of interest is the enormous range in their per capita household incomes. They are generally economically favored countries, but a number of them with less favorable economic status than the United States are doing vastly better as far as pregnancy care is concerned.

No country in the study spends as high a proportion of their gross national product on health care as the United States. And studies done between 1966 and 1982 show that these countries have done a better job of containing the inflationary rises in their health care costs than the United States has done.

The financing systems for health care in these countries are strikingly different. They tend to rely extensively on social security payments, on health insurance payments, with sometimes government insurance and sometimes private insurance. But there are countries such as Switzerland where their whole health insurance system is completely privatized and dependent on something like 400 different companies.

An important difference though among those countries and this country is that in every instance, the central government has defined standards for care and monitored the financing and delivery of services to make sure that there was full equitable and universal participation, unlike this country where as many as 25 percent of women in prime childbearing years are not covered either by private or public insurance at the time.

I won't dwell on the patterns of provider systems available in these countries, but that information is available. Women generally have a wide choice as to whether they see general practitioners, obstetricians, midwives, public clinics. All of those things in these ten countries are extensively available, some choices more in some countries than in others.

In each of those countries, there is an officially recommended number of visits for prenatal care and almost without exception the number of visits that women make to their health care providers meets or exceeds the recommended number.

There is a great deal that has been said about incentives for women to participate in care and it's true that one of the countries, France, withholds certain financial benefits at the time of delivery if a woman does not make a certain number of prenatal visits. That is not generally true, and the pattern is clear that women do seek prenatal care early.

I'm going to describe to you a whole array of pregnancy-related financial and social benefits that are provided and emphasize that most of these benefits are arranged at the first prenatal visit. At that visit, when pregnancy is confirmed, the appropriate agencies are contacted and women are enrolled for benefits which accumulate all through the pregnancy and for the months following—again, a powerful incentive for women to enter care as early as possible.

Home visiting is a prominent feature of care for pregnant women in all of these countries. In a number of them, routinely, without regard to socio-economic status, a home visit is made by a public health nurse prior to delivery to make sure the home circumstances and provisions are adequate for the care of the newborn baby. But the most remarkable feature to me was the extent of the home visiting post-natally, after the mother and the infant return home. Every country makes some kind of provision, at least once, if not more times, to visit the mother and infant at home, to provide counseling and instruction about infant care.

The most remarkable program is that in the Netherlands where for ten days after delivery, a home visitor goes into the home for eight hours every day. During that visit, the home visitor assists with the housework, helps prepare the meals, does the shopping, looks after the older children, instructs the mother on infant care and helps look after the mother's needs.

When I first learned of this program, I thought well, that may work very well for the assertive, well-educated Dutch women, but I wonder if it works equally well for the Indonesian and Suranamese? It does. During 1986, the average number of hours spent in the home by a visitor for every infant born in the Netherlands was 64 hours.

The benefits that associate with pregnancy are enormous. There are transportation privileges. Women are given first class rail travel with economy tickets, an important consideration for nations with large numbers of commuters. There are paid leaves from employment consistently in all of these countries. There are birthing bonuses without regard to socio-economic status to assist mothers with costs of equipping their homes and buying materials for the new baby. There are family allowances that help pay the costs of childbirth.

Again, I emphasize that these countries pay less for health care than this country and though they are sometimes are characterized as welfare states, I went back and reviewed the economic distribution of the economies of those countries. They have a smaller proportion of their total economy contributing to the service sector than the United States has. Clearly, whatever we're contributing our service sector to it's not for the needs of pregnant women and infants.

The Cesarean section rate, a matter of some interest for lots of reasons, including expense, is very different in Western Europe than it is in this country. In this country now about 23 percent of all infants are born surgically, by a surgical operation. The proportion in Europe is as low as 4.5 percent, which is the rate for the Netherlands.

I mentioned the maternity leave. And I want to record that for you. Every country provides paid maternity leaves and sets protective limits on the working circumstances for pregnant women.

The usual practice of most countries is to transfer women to non-strenuous jobs as soon as pregnancy is confirmed. Night work for pregnant women is forbidden except with the women's consent. The duration of usual maternity leave varies from a total of nine weeks to 29 weeks. In most countries, the leave is obligatory. In Norway, the father may take up to 12 weeks paid post-natal leave if he is declared to be the principal caregiver rather than the mother. The Federal Republic of Germany and Spain both allow either parent to take the post-natal leave.

The amount of pay that the mother receives during this period of leave varies from four countries where 100 percent of her salary and wages are paid during the leave to other countries where there is a minimum fixed payment regardless of her salary.

The interpretation of all of this to me means that impressive records of birth weight and infant survival can be achieved under enormously varying circumstances. They include establishing easily understood and readily available provider systems; removing all barriers, especially economic ones, to the full range of services embraced by those systems. I would emphasize that all of the services that I described to you for women regardless of socio-economic status are rendered free of charge or with only the most token fees that are waived in the event of need. An important feature is the linking of prenatal care to comprehensive social and financial benefits.

I think there is no circumstance of demography, of personal and national finance or of tradition to providing and paying for health care that precludes approaches that assure appropriate peri-natal care for every pregnant woman.

Careful studies have shown that such an approach would in the long run save public expenditure rather than increase it.

The diversity of approaches in Europe is reassuring. Society can care for all pregnant women and newborns while at the same time protecting other interests. Exemplary and equitable systems of maternity care can be implemented in ways that preserve a woman's choice of providers, acknowledge the predominance of physician providers, preserve a private and voluntary orientation to health care, maintain a role for private insurance, and encourage governmentally decentralized modes of implementation.

These are all circumstances that require attention in the U.S.

Finally, I think patterns of peri-natal care vary greatly from one country to another, except in one important respect. No pregnant woman in Europe needs to ask where or how she will receive care or who will pay for it. In all the countries studied, various options are available, but that variation does not obscure access to well-defined provider systems universally available.

I have a full report of the study. It's going to be published as a monograph form by the National Center for Clinical Infant Programs in June of this year. We'd be happy to make it available to the Committee or Staff Members.

Thank you.

Mr. DURBIN. Thank you, Dr. Miller.

[Prepared statement of C. Arden Miller, M.D., follows:]

PREPARED STATEMENT OF C. ARDEN MILLER, M.D., PROFESSOR AND CHAIRMAN, DEPARTMENT OF MATERNAL AND CHILD HEALTH, THE UNIVERSITY OF NORTH CAROLINA AT CHAPEL HILL, SCHOOL OF PUBLIC HEALTH, CHAPEL HILL, NC

The work reported here was supported by a Fulbright grant, by a grant from the Ford Foundation, and through the cooperation of the European Office of the World Health Organization. A full report of the analysis will be published in June, 1987 by the National Center for Clinical Infant Programs.

Birth weights and infant survival are generally more favorable in western Europe than in the United States, a circumstance that has attracted comment from health policy analysts for several decades. Trends during this time have demonstrated continued improvement among all industrialized nations, but have placed the US lower in the ranks of nations with the best infant mortality rates (Children's Defense Fund, 1987). Recent adverse trends for several US indicators of maternal and infant health (Miller, et al, 1986; Children's Defense Fund, 1987) have sharpened interest in the circumstances that pertain in the countries with the best performance records (National Center for Health Statistics, 1985).

Opportunity to review perinatal supports, services, and financing in Europe came in 1982 with completion of a survey among 23 cooperating nations. The survey was conducted by a Perinatal Study Group convened by the World Health Organization Regional Office for Europe (EURO) in Copenhagen. The Group categorized the survey responses according to characterizations of each country's health care systems as monopolistic, pluralistic, or intermediate. Monopolistic systems of health care were identified as those in which "...pregnancy and birth care is offered exclusively through institutions such as health centers and maternity outpatient and inpatient departments. In these institutions all personnel are employed by the state." (World Health Organization, Regional Office for Europe, 1985, pp. 7-8). Pluralistic health care systems were characterized as "...care during pregnancy and birth is provided by midwives and doctors in private practice and, to a lesser extent through institutions. The woman is relatively free to choose the type of care she wants." (ibid, p. 8). Intermediate systems retain features of both extreme system.

Countries that were characterized as having monopolistic systems of health care were excluded from the following analysis in the belief that their experience would bear little relevance to US policy. Exclusions were also made for countries with populations less than one million, and for those with infant mortality rates less favorable than the US. Ten countries remained for analysis (Exhibit 1).

Inclusion of Spain and Ireland in the study group arouses interest because they are less affluent than other nations in the study. Both of them have undertaken important health service reforms in recent years and have achieved impressive new records for infant survival.

CHARACTERISTICS OF THE STUDY COUNTRIES.

Several circumstances about the ten study countries deserve consideration.

Demographics.

The populations of the study countries are substantially smaller than the US, but this does not mean that comparisons are inappropriate. As implementation of US policies moves increasingly to state levels the size of many European nations becomes a legitimate counterpart for considering models of care.

EXHIBIT 1

STUDY COUNTRIES

	Infant Mortality Rate (usually 1982)[*]	Rate of Low Birth Weight[+]
Belgium	10.10	5
Denmark	7.71	6[o]
France	9.40	5
Federal Republic of Germany	10.20	5
Ireland	10.10	4
Netherlands	8.40	4
Norway	7.90	4
Spain	9.60	NA
Switzerland	7.60	5
United Kingdom	10.00	7

[*] Source: WHO, 1986

[+] Source: UNICEF, 1987

[o] Other sources report a rate of 4 for Denmark (WHO, Seventh Report on World Health Situation, Geneva, forthcoming).

Comparison of human services between the US and European countries are sometimes discounted on the basis that heterogeneity of the US population complicates delivery systems more than in Europe. That reasoning is weakened by a regard for migrations since World War II into Western Europe from the Middle East, North Africa and from various former colonies. For example, foreign-born persons make up 10.6 percent of the population of France, 16.7 percent of Switzerland, and 8.8 percent of the United Kingdom (Demographic Yearbook, 1983). Proportions are much higher for some cities. In Amsterdam 18.2 percent of the population is foreign born (Doornbos and Nordbeck, 1985) and the proportion for Brussels was 23.9 percent in 1981 (Buekens, 1986). The large contribution of non-autochthonous populations to the problems of childbearing is most strikingly revealed by data on the country of origin for children under five years of age in Amsterdam in 1981; 44.5 percent were born to non-autochthonous families, most commonly Surinamese or Morrocan (Doornbos and Nordbeck, 1985).

Many reports (Doornbos and Nordbeck, 1985; Kaminski et al, forthcoming; and Blondel, 1985) confirm that pregnancy-related utilization of services and pregnancy outcomes for immigrant women are less favorable than for autochthonous populations, but the gaps are neither great nor consistent. In Sweden (not included among the study countries) non-Nordic immigrant families were shown to use health services extensively and to have pregnancy outcomes that were comparable if not more favorable than for indigenous Swedes (Smedby and Ericson, 1979). Doornbos and Nordbeck (1985) cite a study in West Germany demonstrating that perinatal mortality rates among Turkish immigrants were similar to the German population of the same socioeconomic status.

All countries in the study have lower rates of low birthweight than the US (Exhibit 1). When the US rates are disaggregated according to race the US rate for whites (5.7) is still substantially higher than the best European rates (4.0) (Office of Disease Prevention and Health Promotion, 1986). These differences cannot be explained entirely on the basis of different rates of teenage childbearing. When corrections are made for other known variables the contribution of maternal age to low birthweight is small (Institute of Medicine, 1985).

Population density is high in most of the countries, but the exceptions are important. Norway's population is widely scattered among many isolated communities. The average number of prenatal visits varies only between 10 and 14 in all parts of the country. Pregnant women who live in remote areas are reimbursed for travel expenses and subsistence for ten days in order to relocate to an area near a hospital at the time delivery is expected.

Among the study countries the urbanized portion of the population ranges from a low of 57 percent for Ireland to a high of 96 percent for Belgium. Four countries in the study (France, Norway, Ireland and Switzerland) have a less urbanized population than the US (UNICEF, 1987).

Teen-age Childbearing. The most important demographic difference between the US and the ten European nations is the age specific fertility rate. Rates for teenage pregnancy, abortion and childbearing are substantially lower in Europe than in the US (Jones et al, 1985). The rate of childbearing among 15- to 19-years old women in strikingly higher in the US than in the European countries (Exhibit 2). The difference holds for both black and white US populations and would be even greater if the high abortion rate in the US did not interrupt nearly half the teenage pregnancies. This entire issue and its implications for infant survival have been carefully reviewed by the Alan Guttmacher Institute (Jones, et al, 1985). Their findings suggest that age of onset of sexual activity does not vary greatly among these countries, but the US differs with more limited access to contraception and less participation by children in organized programs of sex education.

A dramatic decline in European rates of teenage childbearing took place during the 1970s when the US rate remained high (Exhibit 2). The low level of teenage childbearing in Europe occured in the context of extensively expanded medical and social benefits for pregnant women including income supplements to help with the expense of child rearing. These expanded benefits did not induce teenagers to increase their fertility in order to take advantage of financial benefits.

Household Income. The per capita Gross National Product (GNP) in the US and in Western Europe is exceedingly favorable, but it does not independently account for low infant mortality rates. A three-fold difference in per capita GNP separates the European countries with the lowest values from those with the highest (Ireland and Spain with values of $5,230 and $5,640 respectively, and Switzerland with $17,430). The US rate is higher than for six nations with better records of infant survival (WHO, forthcoming).

EXHIBIT 2

RATE TEENAGE CHILDBEARING*

	1970	1980s
Belgium	31	19 (1981)
Denmark	32 (1975)	11 (1984)
France	27	15 (1982)
Federal Republic of Germany	36	10 (1983)
Ireland	16	18 (1984)
Netherlands	23	7 (1984)
Norway	45	20 (1983)
Spain	22 (1975)	27 (1979)
Switzerland	22	8 (1983)
United Kingdom	41	28 (1984)
USA	64** (1969)	54** (1982)

*Live births per 1000 women age 15-19, from EURO national files, Copenhagen.

**Demographic Yearbook, United Nations, 1973 and 1983.

The distribution of proportional shares of household income between the highest and lowest quintiles provides interesting information (Exhibit 3). The gap between rich and poor is greater in the US than in any country except France, for which recent data are not available.

EXHIBIT 3

HOUSEHOLD INCOME

	Difference Between Highest and Lowest Quintiles in Proportional Share of Total Household Income (1979-1982)
Belgium	26.1
Netherlands	27.9
Switzerland	31.4
Federal Republic of Germany	31.6
Ireland (1973)	32.2
Norway	32.2
United Kingdom	32.7
Spain	33.1
Denmark	33.2
United States	34.6
France (1975)	40.3

Calculated from data in WHO's Seventh Annual Report on World Health Situation, Geneva.

Redistribution of household income to reduce pauperism might bring many benefits including a reduction in infant mortality rates. But the record clearly indicates that average household wealth that is much less than in the US, and income distributions that are not greatly different (France, Denmark, Spain) are compatible with highly favorable rates of infant survival. Without in any way minimizing the urgency for reducing poverty rates, especially in households with children, a compelling case can be made that selective and direct approaches for improving pregnancy outcomes are both feasible and desirable even within the present income structure of the US. The recent records in Ireland and Spain are especially compelling in this regard. Barcelona, known to have extensive barrios of poverty and congestion has an infant mortality rate of 8 (EURO file, 1986).

National Finances. No country in the study spends as high a proportion of gross national product on health care as the US (Exhibit 4). Countries that emphasize insurance systems to reimburse private physicians on a fee-for-service basis (Belgium, France, Federal Republic of Germany, and Switzerland) tend to spend more (average 8.3 percent of GNP) than counties that compensate providers at a negotiated fixed per capita rate (Denmark, UK, Norway, Netherlands; average 6.8 percent of GNP) or those which make extensive use of public clinics (Spain, Ireland, and in some areas the UK and Norway; average 6.2 percent of GNP).

Predominant health care provider systems and their means of financing vary greatly among the European countries, but they have been consistent in pursuing vigorous policies to reduce hospitalization other than for childbearing (WHO, forthcoming).

EXHIBIT 4

	PERCENT OF GROSS NATIONAL PRODUCT SPENT ON HEALTH CARE, AROUND 1983*
Belgium	9.1
Denmark	5.5
France	8.0
Federal Republic of Germany	9.3
Ireland	7.4
Netherlands	8.8
Norway	7.1
Spain	4.3
Switzerland	7.0
United Kingdom	6.1
USA	10.7

*From WHO, Seventh Annual Report on the World Health Situation. Forthcoming.

They have also emphasized organized community services with decentralized administration under uniform national standards for preventive measures. Increasing responsibility for health services has been placed on local governmental jurisdictions as the role of central government has been strengthened for standard setting, monitoring and overall financing. Even in Switzerland, probably the most privatized system of health care among the ten study countries, national perinatal service standards are defined and their implementation is subsidized by government grants to the insurance companies.

Analysis of economic growth in the European communities reveals that the service sector of the economy is no higher than for the US and during the past decade has grown no more rapidly (World Bank, 1986). Studies between 1966 and 1982 show that the European countries, even with their generous universal entitlements to health services, have done a better job than the US in containing rising health care costs (Abel-Smith, 1985).

Health Care Financing and Delivery. Financing systems for health care are strikingly different among the countries, and bear no consistent relationship to differences in prevailing health care provider systems. Insurance and social security schemes predominate, premium payments being made both by employers and by workers as wage deductions. Insurance may be government run or controlled (Netherlands, Spain, Belgium), predominantly private (Switzerland) or a combination of public and private systems (Federal Republic of Germany, France). In four countries, all of which rely predominantly on office-based practitioners for primary care, financing comes entirely or in large part from general tax revenues (Denmark, UK, Ireland, Norway).

The different forms of health care financing are categorized in Exhibit 5. In that taxonomy the US would be categorized as having a public/private system of financing. Public systems in the US include Medicare, Medicaid, and Title V of the Social Security Act specifically for Maternal and Child Health services. Health care financing in the US differs from the other countries in two important respects. The first is that uniform national standards for perinatal care, as for other health services, have not been developed, and hence insurance companies and provider are not monitored to maintain consistent participation in quality care. The second major difference is the US failure to achieve universal coverage of the population in one or another scheme for health care financing.

The diversity of arrangements for health care financing in Europe should not obscure a theme common to all countries. No matter what the financing system, even when private intermediaries participate extensively, central government has defined the services that are to be provided and in the instance of maternity care has in every country removed all barriers to those services. The full range of perinatal services is provided without charge to women of all socioeconomic levels, with only a few minor fees that are readily waived in the event of need.

EXHIBIT 5

HEALTH CARE FINANCING

PRIVATE INSURANCE -	SWITZERLAND
GOVERNMENT INSURANCE -	BELGIUM NETHERLANDS SPAIN
PRIVATE/GOVERNMENT COMBINATION -	FEDERAL REPUBLIC OF GERMANY FRANCE
GENERAL TAX REVENUES -	DENMARK IRELAND NORWAY UNITED KINGDOM

SOURCE: WHO, 1986

MATERNITY RELATED SERVICES.

In several countries (Belgium, France, FRG, Norway, Switzerland) usual procedure is for a pregnant women to seek prenatal care from a general practitioner or obstetrician of her choice. In Denmark and the UK every person is registered with a general practitioner who serves as a gatekeeper to other services. In the UK that practitioner ordinarily continues prenatal care for uncomplicated pregnancies, arranging for a visit with the midwife and consultations as needed with obstetricians at the hospital where the woman is booked for delivery. In Denmark a precise schedule is followed including two visits to an obstetrician, five to a midwife (public employee) and three to the general practitioner. Public clinics are an option for care in Norway.

In the Netherlands a woman first contacts a general practitioner and then makes a decision to continue that care or be transferred to a privately practicing midwife who would also deliver the baby. An obstetrician is seen only for complicated pregnancies. In Ireland and Spain women may seek care from an obstetrician or general practitioner of choice, but recent emphasis has focused on the use of multi-disciplining primary care public clinics. The general practitioner's role has declined except as a participant in those clinics. The tradition is strong for specialists, such as obstetricians, to be hospital based and to render their consultations in hospital out-patient departments.

Midwives are extensively involved in European maternity care. Their work is ordinarily confined to hospitals and to rendering prenatal care in multidisciplinary clinics, except in the Netherlands where midwives are independent office-based practitioners. In Denmark midwives are government employees and work out of public offices or clinics participating in a schedule of routine prenatal care that includes visits to a general practitioner and to an obstetrician. A 1984 government report in Norway recommends twelve antenatal visits for uncomplicated pregnancies, half of the visits to a midwife and the other to a general practitioner. In most countries midwives attend uncomplicated deliveries for women who have received routine prenatal care from office-based general practitioners.

Public Clinics. Public clinics are sometimes regarded as an available alternative to office based physician practice (Exhibit 6). In Norway, for example, each municipality is required to maintain at least one public multidisciplinary health center even though care by office-based medical practitioners may be readily available. In some other countries multidisciplinary public clinics have been developed in selected locales to enhance services for hard-to-reach populations (Belgium, United Kingdom). Several countries have either phased out public clinics or have elected not to develop them in the belief that access to physicians' offices is both assured and universally utilized (Denmark, Netherlands, Federal Republic of Germany, Switzerland, and France). Only two countries in the study (Ireland and Spain) have pursued a recent policy that dramatically extends public clinics and relies on them as a multidisciplinary focus for primary medical care, including perinatal care, and for a number of social support services.

EXHIBIT 6

Public Health Centers That Provide Prenatal Care

- Not available except in the out-patient departments of hospitals:
    - Federal Republic of Germany
    - Netherlands
    - Switzerland
- An option for prenatal care, at least in some areas:
    - United Kingdom
    - Ireland*
    - Spain*
    - France
    - Belgium
    - Norway
    - Denmark (for visits to Midwife)

*Recent policies that expand public clinics

Source: Euro Survey

Both countries were faced with the need to improve health conditions without major increase in expenditures. In both countries these goals have been impressively realized.

Number of Antenatal Visits. The officially required or recommended number of antenatal visits for the uncomplicated pregnancy varies enormously (4 to 12). The average number of visits actually made closely approximates or exceeds the recommendations (Exhibit 7).

EXHIBIT 7

Number of Antenatal Visits (1981-82)

	Legal or Rec. No.	Average Actual Number
Belgium (French Speaking Sector)	7	9.4*
Denmark	10	8
France	7	5.9
Netherlands	12	12-14
Norway	12-14	39% of women >10
Switzerland	3-4	5
United Kingdom	12-13	10-12 (Scot)
Federal Republic of Germany	10	ND
Ireland	6	10 urban 5 rural
Spain	ND	ND

ND - No Data

Adapted from Blondel, forthcoming; EURO Survey

*From Vandenbussche, Wollast and Buekens, Brit. J. Obstet & Gynecol. 1985, 22:1297.

Home Visiting. Home visiting is a feature of nearly every country's maternity care, more consistently practiced after delivery than as a part of prenatal care (Exhibit 8). Home visitors are sometimes midwives but they are more often nurses with special training for home visiting. No country makes use of health aides or indigenous workers as home visitors, except possibly the Netherlands where an extensive postnatal homemaking service supplements routine postnatal visiting by the midwife or general practitioner who rendered prenatal care.

EXHIBIT 8

HOME VISITING
(Data not available for Spain)

A. PRENATAL -

Always at least once -

Netherlands
Belgium (unevenly implemented)
*Denmark (unevenly implemented)

Only for complicated pregnancies or to check on clinic non-attenders:

Norway
France
*Ireland
*United Kingdom
Belgium
Switzerland
Federal Republic of Germany (not an extensive program)

*Well developed program for non-attenders.

B. POSTNATAL HOME VISITS

Always at least once

Denmark
Ireland
Netherlands (daily visits by a maternity care worker for up to eight hours each day through the 10th post-partum day)
Norway
Switzerland
United Kingdom (daily visits by a midwife or health visitor for 10 days)
Belgium

Only for special indications:

Federal Republic of Germany
France

Source: EURO Survey

Postnatal home visiting in the Netherlands is a central theme of maternity care. Every woman is visited at home either by the midwife or general practitioner. In addition a specially trained maternity home helper stays at home with the mother and infant for up to eight hours a day until the 10th post-partum day. The visitor helps with infant care, shopping, housekeeping, meal preparation and care of older siblings. In 1986 each newborn and mother received an average of 64 hours of postnatal home visiting (Verbrugge, 1987). For this service the family pays only a token fee.

In all countries postnatal home visiting is seen as a means for counseling about infant care, for follow-up on the mother's health, for advice on family planning, to initiate or follow-up neonatal screening procedures, and to arrange for additional appointments for the infant and mother.

Incentives to Participate in Prenatal Care. In two countries (France and Federal Republic of Germany) financial benefits, payable at the time of delivery, have been withheld if the woman did not participate in a specified number of prenatal visits. In West Germany this practice has been discontinued and the benefits are now rendered without reference to prenatal visitation; only France continues the practice of offering a financial bonus for women who have made at least three prenatal visits.

The French system places incentives in an explicit and overt context with some punitive implications. Another way of considering incentives is to regard the full range of benefits and supports, not all of them financial, associated with childbearing as incentives to enroll in prenatal care. Benefits and services include: transportation privileges; early booking for delivery according to the woman's preferences; paid leaves from employment; birthing bonuses; family allowances; and home visitors who counsel, instruct and even help with the shopping and housework; preferences in housing; and children's allowances to help with the costs of child rearing. All these are powerful incentives to register the pregnancy and impending delivery with the appropriate agencies, procedures ordinarily accomplished at the first prenatal visit.

In all European countries in the study the incentives for participating in prenatal care are strong, and the barriers are nearly non-existent. Rather than ask why pregnant women participate so early and so consistently, the question might instead be posed as "Why wouldn't they?"

Home deliveries. The proportion of home deliveries has declined everywhere and remains high only in the Netherlands, where it represents officially supported policy (Exhibit 9).

EXHIBIT 9

Home Deliveries as a Proportion of All Deliveries (1979-82 data)

Belgium (1984)	0.4%
Denmark	0.5%
France	0.5%
Federal Republic of Germany	1.0%
Netherlands	35.4%
United Kingdom	1.4%

Precise data are not available for other countries beyond notations that home deliveries are rare or uncommon. (EURO Survey).

The high rate of home deliveries in the Netherlands stands apart from all other nations. The Dutch insurance system will not compensate for an obstetrician's services or for a hospital delivery in the absence of a specific medical indication from an authorized list. New perinatal guidelines in Denmark encourage home deliveries which are increasing in some parts of the country.

Hospital Deliveries. Precise data were not available on the duration of hospital stay for childbearing, but evidence is suggestive (e.g. Denmark, Ireland, Netherlands) that it is longer than in the US and that when the stay is less than five days the postnatal home visits are increased in frequency and duration.

The Netherlands provides arrangements for deliveries that are neither fully hospital nor home based. A Polyclinic delivery allows a woman and her birthing attendant to arrange for delivery on hospital premises, and to stay for up to 36 hours, then to return home for the usual pattern of home visiting. The delivery is not recorded as a hospital admission and hospitals are not compensated on that basis. About one-third of the nation's deliveries conform to this pattern.

Caesarean section rates are consistently lower than in the US (Exhibit 10) where in 1985 it was 23 percent (Placek, 1986). Trends are upwards in all countries. All countries in the study maintain neonatal intensive care units and rapid transport for distressed infants who require such services.

Continuity of Care. Continuity of care in the sense that one provider attends the same patient throughout the prenatal, intrapartum and postnatal periods is not a prominent feature in any of the countries. Community practitioners, whether in private practice or working in community settings do not ordinarily have access to hospital care. Communications among different providers become urgent because a pregnant woman may receive prenatal care in more than one setting (practitioner's office and specialist's clinic at the hospital, be delivered by yet another provider (hospital based midwife), and be visited postnatally by someone else. Communications among the various providers are facilitated by having the woman carry her own record or part of it.

EXHIBIT 10

Caesarean Section Rates
For 1983, Unless Otherwise Indicated

Belgium	8.1%	
Denmark	12.8%	
Federal Republic of Germany (Bavaria)	13.2%	
France (1981)	10.9%	
Ireland	N.D.	
Netherlands	4.9%	(NOTE!)
Norway	9.4%	
Spain	N.D.	
Switzerland	N.D.	
United Kingdom	10.1%	

N.D. No Data

Source: International Office, National Center for Health Statistics, Department of Health and Human Services, Hyattsville, MD.

MATERNITY-RELATED BENEFITS

Every country provides paid maternity leaves and sets protective limits on the working circumstances for pregnant women. Usual practice in most countries is to transfer women to non-strenuous jobs as soon as pregnancy is confirmed. Night work for pregnant women is forbidden in the Netherlands, Belgium, Switzerland and Federal Republic of Germany, although exceptions may be made in certain job categories or with the woman's consent. The law in several countries specifies that wages will continue during absences for prenatal visits or classes. The duration of usual maternity leave varies from a total of 9 weeks (Ireland) to 29 weeks (UK) (Exhibit 11).

EXHIBIT 11

Duration of Paid Maternity Leave

	Prenatal	Postnatal
Ireland	6 weeks	3 weeks*
Netherlands	6	6
Norway	12	6
Belgium	6	8
Switzerland	8	8
Denmark	4	14*
Federal Republic of Germany	6	24
United Kingdom	11	29
Spain	ND	ND
France	6	8

*Leave is extended for premature delivery

ND - No Data

Source: Ierodiaconou, 1986 and Euro Survey

In most countries the leave is obligatory. In Switzerland, Norway and Belgium the woman may elect to work until delivery and add the allowable prenatal leave for an extended postnatal leave. Similar postnatal extensions are permissable in the event of premature delivery. In Norway the father may take up to 12 weeks paid postnatal leave if he is the principal care giver; the Federal Republic of Germany allows either parent to take postnatal leave.

The amount of pay during maternity leave varies as indicated in Exhibit 12.

EXHIBIT 12

	Amount of Payment During Maternity Leave
Belgium Federal Republic of Germany Norway Netherlands	100% of Mothers salary (usually to a maximum level).
Denmark France	90% of salary
Spain	75% of salary
Ireland United Kingdom Switzerland	A fixed payment regardless of salary

Source: EURO Survey and Ierodiaconou, 1986

The source of funds for the payment of leaves varies considerably. It is more often from social security or health insurance funds than directly from the employer, a circumstance that may protect against descrimination in the employment of women of childbearing age.

Leave can often be extended on an unpaid basis without loss of job or job related benefits. Such extensions are possible in France and the Federal Republic of Germany for one to three years. In Belgium the period of leave is extended (unpaid) to the end of the fifth month for mothers who breast feed. All countries provide that in the event of illness additional paid sick leave may be given on medical authorization.

Payment during nursing breaks is ordinarily assured, ranging from two one-half hour intervals to two full hour periods each day (France, Norway).

Maternity grants or bonuses, without means testing, are paid at the time of child bearing in all countries except Denmark. The payments are intended to assist with the cost of supplies and equipment for the new baby. Switzerland pays an additional bonus for mothers who breast feed.

In all countries family allowances are paid for each child on a monthly basis, ordinarily until adulthood or until completion of education. The amount of the monthly allowance varies according to the number of children, but typical payments are shown in Exhibit 13).

Some special maternity related considerations are noteworthy. Belgium allows pregnant women first class rail travel on a second class ticket - a way of assuring a seat for pregnant women in a population of commuters. Special additional considerations are given to single mothers in most countries. Priorities for day care and for public housing are well established for working mothers or for large families.

EXHIBIT 13

Amount of Monthly Payment as a Childrens Allowance

FOR TWO CHILDREN -

10-13% of average monthly wage
- Belgium
- Federal Republic of Germany
- France
- United Kingdom
- Netherlands

2-5% of average monthly wage

- Denmark
- Ireland
- Norway
- Switzerland

Source: Ierodiaconou, 1986

US COMPARISONS

Concern is mounting that in the United States the adequacy of supports and services on behalf of women of childbearing age and their infants is not adequately responsive to their need (Miller et al., 1986). Little more than half of practicing obstetricians will see Medicaid patients (Orr and Forrest, 1985). For the nation as a whole twenty-five percent of women of prime childbearing age are not protected by either public or private health insurance (Gold and Kenny, 1985). The charges for childbearing range formidably between three and five thousand dollars (estimated on average to be $3,100 for a normal delivery and $4,800 for a caesarean section in 1985; Kenney AM, et al, 1986). More than twenty percent of pregnant women and a greater proportion of minority women fail to receive early prenatal care (National Center for Health Statistics, 1985b). The record has been worsening since 1981 (Miller, 1986).

Data on postnatal home visiting in the US are generally not available. In one southern state (NC) with a high infant mortaltiy rate home vistis during 1986 were made to only 20 perent of babies born weighing less than 3.3 pounds.

The European experience suggests that these problems have readily available solutions which require for their implementation some initiatives and inspiration at the highest levels of government. Quick fixes will not suffice. Specific strategies such as support for home visiting, better compensation for physician providers, and programs of high risk screening may each be a part of the solution, but these strategies will work only in the context of operative policies that assure universal participation of pregnant women in basic services and supports that are appropriate to their need.

Additional localized demonstration projects are scarcely required. Their numbers have been legion over the past three decades. The wisdom from successful demonstrations needs to be institutionalized for the benefit of all women of childbearing age.

The diversity of approaches in Europe is reassuring. Society can care for all pregnant women and newborn infants while at the same time protecting other interests. Exemplary and equitable systems of maternity care can be implemented in ways that preserve a woman's choice of provider, acknowledges the predominance of physician providers, preserves a private and voluntary orientation to health care, maintains a role for private insurance, and encourages a governmentally decentralized mode of implementation. These are all interests that would require attention by a universal system of maternity care in the US. What must be challenged is the orientation that access to appropriate services is every woman's own responsibility. Society has a role. That role requires: removal of all barriers to care, assurance that appropriate services are available and accessible, and provision of supports and protections that are not otherwise available.

CONCLUSION

Review of pregnancy related supports and services in ten Western European countries with outstanding records of infant survival and low birthweight suggest that favorable records of birth weight and infant survival can be achieved by:

- establishing easily understood and readily available provider systems;
- removing all barriers, especially economic ones, to the full range of services embraced by those systems;
- linking prenatal care to comprehensive social and financial benefits that enable pregnant women and new mothers to protect their own well-being and to nurture their infants.

Most of the countries have established impressive programs of outreach featuring home visiting. It is primarily designed to retain pregnant women in prenatal care, and to enrich it, rather than to recruit women into care. Women appear to be attracted into care in order to avail themselves of the substantial medical and social benefits that attach to pregnancy and childbearing.

The European experience, and many special projects in our own country, have demonstrated that the wisdom and the means are available for the nation to improve vastly its performance for the care of pregnant women and newborns. No circumstance of demography, of personal or national finance, or of traditions that attach to providing and paying for health care preclude approaches that assure appropriate perinatal care for every pregnant woman. The strategies for providing that assurance are well described. Careful studies have shown that such an approach would in the long run save public expenditures rather than increase them (Institute of Medicine, 1985). The requirements for the most expensive services are greatly reduced because of the lower rates of low birthweight.

The issue of providing adequate preventive care for pregnant women in the US is neither medical nor financial. It is political. The means are available to do a better job. Many countries with fewer resources than the US are doing it.

CITATIONS

Abel-Smith B. 1985. Who is the Odd Man Out?: The Experience of Western Europe in Containing the Costs of Health Care. Milbank Memorial Fund Quarterly 63:1-17.

Blondel B, Pusch D, and Schmidt E. 1985. Some Characteristics of Antenatal Care in 13 European Countries. Brit J. Obstetrics and Gynecology 9(6) 565-568.

Buekens P. 1986. Personal Communication. Ecole de Sante Publique, Universite' Libre de Bruxelles.

Children's Defense Fund. 1987. The Health of America's Children. Washington, p. 7.

Demographic Yearbook, 1973 and 1983. United Nations. New York.

Dornbos JPR and Nordbeck HJ. 1985. Perinatal Mortality, Obstetric Risk Factors in a Community of Mixed Ethnic Origin in Amsterdam. BV. Dordrecht. Amsterdam.

Gold R and Kenny A. 1985. Paying For Maternity Care. Family Planning Perspectives 17(3):103-111.

Ierodiaconou E. 1986. Maternity Protection in 22 European Countries. In Perinatal Health Services in Europe. Ed. by Phaff JML. Croom Helm. New Hampshire.

Institute of Medicine, 1985. Preventing Low Birthweight. National Academy Press. Washington, DC.

Jones EF, Forrest JD, Goldman N et al. 1985. Teenage Pregnancy in Developed Countries: Determinants and Policy Implications. Family Planning Perspectives 17(2)53-63.

Kaminski M, Breart G, Buekens P, et al. Forthcoming. Perinatal Care Delivery Systems. Description and Evaluation in European Community Countries. Oxford.

Kenney AM, Torres A, Dittes N, and Macias J. 1986. Medicaid Expenditures for Maternity and Newborn Care in America. Family Planning Perspectives, 18:103-106.

Miller CA, Fine A, Adams-Taylor S, et al. 1986. Monitoring Children's Health: Key Indicators. American Public Health Association. Washington, DC.

National Center for Health Statistics, 1985b. Health United States, 1985. US Department of Health and Human Services, Hyattsville, Md.

Office of Disease Prevention and Health Promotion. 1986. The 1990 Objectives for the Nation: A Midcourse Review. US Department of Health and Human Services. Hyattsville, Md.

Orr, MT and Forrest, JD. 1985. The Availability of Reproductive Health Services from US Private Physicians. Family Planning Perspectives 17:63.

Placek B. 1986. Commentary: Caesarean Rate Still Rising. Statistical Bulletin, Vol. 67, No. 3, p. 9.

Smedby B and Ericson A. 1979. Perinatal Mortality Among Children of Immigrant Women in Sweden. Acta Paedeatr Scand Suppl 275;69;41-47.

UNICEF. 1987. The State of the World's Children 1987. Oxford.

World Bank. 1986 World Development Report. Oxford.

World Health Organization. Forthcoming. Seventh Annual Report on the World Health Situation. Geneva.

World Health Organization Regional Office for Europe (EURO), 1985. Having A Baby in Europe. Copenhagen.

Verbrugge HP 1987. Staatstoezicht of de Volksgezondheid, Rijswijk. Netherlands. Letter, Jan. 22, 1987.

Mr. DURBIN. James Garbarino, president of the Erikson Institute for Advanced Study in Child Development, Chicago, IL.

Dr. Garbarino.

STATEMENT OF JAMES GARBARINO, PH.D., PRESIDENT, ERIKSON INSTITUTE FOR ADVANCED STUDY IN CHILD DEVELOPMENT, CHICAGO, IL

Mr. GARBARINO. Thank you. It's a pleasure to be here.

I've been asked to address prevention issues and opportunities in the early childhood period, roughly ages 2 to 5. And I want to focus on three such opportunities.

The first is preventing academic failure. Early in this century, our society could and did accept a low standard of normal academic achievement. Indeed, 50 years ago, less than half of all students graduated from high school, and "dropping out" was the rule rather than the exception.

Now we have raised our standards for full participation in society, and we want all children to succeed in school. This means that preventing academic failure early in life has become a national need as never before.

Although infancy is a critical time for basic intellectual development, it is in the early childhood period that the specific foundations for academic success are laid. A growing research base indicates that a culture of literacy provides the foundation for learning how to read and write. That is, rather than learning to read early, it is preparing to participate in that culture of literacy that is the precondition for the later success of instruction.

We believe the lessons we have learned from studying the foundations of literacy apply to mathematics as well. By providing literacy-promoting activities, motivated parents and professionals and members of the community can communicate the message that children need to become fully conversant with "the academic culture."

This involves the message that reading is important, that the use of written materials is a natural event in the lives of children, that parents value literacy and mathematics.

Thus prepared, young children are ready to start school not as aliens to the materials, the expectations and the themes of academic life, but as natives to that peculiar academic culture. This is crucial if schools are to succeed in a widespread way in their mission of teaching basic skills.

For example, many kindergarten teachers report that they can handle one child or two children who are culturally unprepared for school without disrupting the learning of other children. However, when several children are culturally and socially unprepared for classroom life, the result is to disrupt the learning of even those who are ready. As we know, many kindergarten classrooms today contain many such unprepared children, children who in effect are aliens to the school rather than natives to its culture.

Early childhood education programs that promote the academic culture can make a difference in school failure rates. These effects are evident, as you heard earlier, in longitudinal studies that demonstrate an effect in reduced dropping out, reduced placement in special education classes, and reduced illiteracy. And they go beyond these academic effects to include reduced unemployment and reduced juvenile delinquency in adolescence.

A second area in which prevention in early childhood works is in efforts to make the environment of the child safer. As you heard earlier, growing public and professional concern about the costly effects of childhood injuries has been raised and this directs our attention to efforts designed to reduce the incidence and consequence of such injuries, particularly in the early childhood period.

Such efforts can make a big difference if they are effective in translating basic epidemiological knowledge into effective behavioral and environmental change. For example, we know that automobile related injuries to children can be reduced significantly if appropriate protective devices are used regularly. We know that tamper-proof bottle caps have reduced childhood poisonings. The available research tells us that we can make the world of the young child safer if we act both with regulation and educational programs.

This extends to injuries resulting from child maltreatment as well. Programs of early relationship building, parent education, and particularly home health visiting early in life predict reduced injuries due to assault in the early childhood period.

It is particularly important I think to recognize that that same home health visiting program that you heard can reduce early medical complications, prematurity, low birthweight and so on, can also produce lowered assault rates against children later in life.

One particular finding for example noted that a home health visiting program almost totally eliminated spanking children at six months of age, which was very common in the unvisited high-risk comparison group.

A third area of preventive work lies in minimizing the stress to young children posed by what some have called "the new demographics" of American family life. By this we mean, of course, the shift away from mothers as sole caregivers of young children towards mothers as workers outside the home in the labor force, and also has meant the increased number of young children growing up in single parent households.

Both changes produce an increased need for child care beyond what the immediate family can provide. The fact of the matter is that most young children spend some of their time in preschools, day care homes, child care centers, or in the care of relatives beyond the nuclear family.

While the debate over the developmental impact of child care outside the home is not finally resolved, there is an emergent consensus among the researchers working in the field that good quality day care for two- to five-year-olds need not be a threat to development.

It can, in fact, enhance development. On the other hand, poor quality care is a threat to development in many cases, and compounds the negative developmental impact of other risk factors.

For this reason, we can say with assurance that high quality care is an essential element in any national prevention-oriented campaign aimed at early childhood.

The critical features in this prevention program are building the resources necessary to permit adequate training, low child-staff ratios and career development for caregivers, whether they be center-based or family day care homes. Like mass transportation, high quality day care is a basic component of a modern society. Like mass transportation, it requires community subsidy to maintain high standards of service and quality across the board.

Recognizing these three areas for preventive programming is not enough. We must also address several policy issues that envelop these programming themes and upon which the long-term success of these initiatives will depend. These issues may be stated as a series of questions:

How powerful will we allow low income to be in shaping the lives of children?

What level of responsibility will the community assume for the wellbeing of young children?

Will we permit prevention programs to 'skim' off the cream of the crop of potential service recipients or will we insist that programs are comprehensive and reach the entire population in need?

Will preventive interventions be under the direction of institutions attuned to the special needs of young children, or will they be driven by the agendas and ideologies of institutions primarily concerned with older children, or in meeting the needs of adults?

Let me say briefly something about each of those questions.

First, low income: The United States is notable among modernized nations in that family income is a very powerful predictor of basic well-being for young children. It is one thing for income and social class differences to predict differences in cultural taste—for example, whether or not one watches PBS, drinks white wine or eats brie. It is quite another to say that income and social class will predict such basics as child mortality rates and functional illiteracy and so on. As things stand now, they do in our country.

Second is community responsibility: For any research-driven prevention policy to work, it must assume that the community has a clear and explicit responsibility for young children. Currently, we define early childhood as a domain in which family privacy is the pre-eminent value. Thus, young children are officially invisible from the time they leave the hospital after birth until they are required to begin formal education at age six. This, I think, reflects a lack of expression of community responsibility.

For example, when I moved to Illinois a couple of years ago I brought to the state both a three year old child and a three year old automobile. The State of Illinois was very interested in the status and condition and location of my automobile, and required me to present it to register, to have it inspected. But my child was officially invisible.

I think that kind of attitude makes it very difficult to focus effectively on preventing harm to young children.

Next, skimming versus comprehensiveness: Any prevention program that simply opens its doors and invites participation is likely to skim off the easiest to reach families and miss the children most at risk for academic, social and health failure.

The issue thus is whether or not prevention initiatives are active in reaching out to achieve a high degree of comprehensiveness. As you heard earlier, even Head Start, our Nation's flagship early childhood intervention program, only reaches a relatively small minority of those for whom the program is intended.

Next, child-focused institutions: As institutions move into the field of prevention in early childhood, a series of concerns emerge about ideology and agenda. For example, there is currently a great deal of concern about public school systems taking on responsibility for early childhood education programs.

Part of this concern is the fear that schools will simply impose a watered-down elementary school curriculum onto three and four year olds. Young children need a curriculum much more clearly focused on play, particularly fantasy play, to enhance their development.

Similar concerns arise when profit-making institutions enter the field of childcare. Here the concern is that management geared to maximizing the bottom line is not necessarily compatible with meeting the developmental needs of young children.

One final policy concern serves as a context for all that has gone before. Prevention programs aimed at young children rarely succeed unless they involve a sympathetic institutional setting. Even the best model programs can become nonfunctional when set within a hostile or incompetent institutional situation. This is a major issue confronting many efforts to inject innovative early childhood education model programs into school systems and childcare institutions that may be plagued by cultural insensitivity, bureaucratic inflexibility, administrative stifling of innovation or staff incompetence.

Years ago, curriculum development specialists sometimes sought to "teacher proof" their materials as a way of ensuring that the materials would have the desired effect regardless of teacher motivation or skill. This did not work.

Now we face the problem of programmatic innovations that go the next step of attempting to "system proof" their models. This occurs when approaches are disseminated in the absence of receptive institutional hosts. This, too, is likely to fail.

There is no quick and easy "magic bullet," only the sustained program development and training conducted within the context of intelligent and enlightened social policy.

Thank you.

[Prepared statement of James Garbarino Ph.D. follows:]

PREPARED STATEMENT OF JAMES GARBARINO, PH.D., PRESIDENT, ERIKSON INSTITUTE FOR ADVANCED STUDY IN CHILD DEVELOPMENT, CHICAGO, IL

What are the major prevention issues and opportunities revealed by research on early childhood development (ages 2-5)? Among the many possibilities, we can focus usefully on three. The first is preventing academic failure. Early in this century our society could and did accept a low standard of normal academic achievement. Indeed, 50 years ago less than half of all students graduated from high school, and "dropping out" was the rule rather than the exception. Now we have raised our standards for full participation in society, and we want all children to succeed in school. This means that preventing academic failure has become a national goal as never before.

Although infancy is a critical time for basic intellectual development, it is in the early childhood period that the specific foundations for academic success are laid. We can confidently move forward with preventive programs that focus on creating and supporting activities in the home, the childcare setting, and the community that promote the foundations for literacy and mathematics. A growing research base, some of it developed by my colleagues at Erikson Institute for Advanced Study in Child Development, indicates that a "culture of literacy" is the precondition for learning how to read and write. We believe the lessons we have learned from studying the foundations for literacy apply to mathematics as well. By providing literacy promoting activities, motivated parents and professionals can communicate the messages that children need to become fully conversant with "the academic culture." Thus prepared, they are ready to start school not as aliens to the mores, materials, expectations, and themes of academic life, but as natives to that culture. This is crucial if schools are to succeed in their mission of teaching basic skills. For example, many kindergarten teachers report that they can handle one child who is culturally unprepared for school without disrupting the learning of the other children. However, when several children are culturally and socially unprepared for classroom life, the result is to disrupt the learning of even those who are ready. Many kindergarten classrooms today contain many such children.

Early childhood education programs that promote the academic culture can make a difference in school failure rates. These effects are evident in reduced dropping out, reduced placement in special education classes, and reduced illiteracy. They go beyond these academic effects to include reduced unemployment and reduced juvenile delinquency.

A second area in which prevention in early childhood works is in efforts to make the environment of the child safer. Growing public and professional concern about the costly effects of childhood injuuries directs our attention to efforts designed to reduce the incidence and consequences of such injuries. Such efforts can make a big difference if they are effective in translating basic epidemiological knowledge into effective behavioral and environmental change. For example, we know that automobile related injuries to children can be reduced significantly if appropriate protective devices are used regularly. We know that tamper-proof bottle caps have reduced childhood poisonings. The available research tells us we can make the world of the young child safer if we act. This extends to injuries resulting from child maltreatment as well. Programs of early relationship building, parent education, and home health visiting early in life predict reduced injuries due to assault in the early childhood period.

A third area of preventive work lies in minimizing the stress to young children posed by what some have called "the new demographics" of American family life. By this we mean, of course, the shift away from mothers as sole caregivers of young children towards mothers as workers outside the home in the labor force, and the increased number of young children growing up in single parent households. Both changes produce an increased need for child care beyond what the immediate family can provide. The fact of the matter is that most young children spend some of their time in preschools, day care homes, child care centers, or in the care of relatives beyond the nuclear family. While the debate over the developmental impact of child care outside the home is not finally resolved, there is an emergent consensus among the researchers working in the field that good quality day care for 2-5 year olds need not be a threat to development. It can, in fact, enhance development. On the other hand, poor quality care is a threat to development in many cases, and compounds the negative developmental impact of other risk factors in a child's life. For this reason, we can say with assurance that high quality child care is an essential element in any national prevention-oriented campaign aimed at early childhood.

The critical features of this prevention program are providing the resources necessary to permit adequate training, low child-staff ratios, and career development for caregivers (whether they be in center-based or family day care homes). Like mass transportation, high quality day care is a basic component of a modern society. Like mass transportation, it requires community subsidy to maintain high standards of service and quality. That most young children are cared for by adults other than their parents is a fact. The quality and thus the potential preventive influence of that care is a matter of policy.

Recognizing these three areas for preventive programming is not enough. We must also address several policy issues that envelop these programming themes, and upon which the long term success of prevention initiatives will depend. These issues may be stated as a series of questions: "How powerful will we allow low income to be in shaping the lives of young children?" "What level of responsibility will the community assume for the well-being of young children?" "Will we permit prevention programs to 'skim' off the cream of the crop of potential service recipients or will we insist that programs are comprehensive and reach the entire population of children in need?" "Will preventive interventions be under the direction of institutions attuned to the special needs of young children, or will they be driven by the agendas and ideologies of institutions primarily concerned with older children or in meeting the needs of adults?" Each of these questions requires some elaboration.

Low Income: The United States is notable among modernized nations in that family income is a very powerful predictor of basic well-being for children. It is one thing for income and social class differences to predict differences in cultural taste - e.g. whether or not one watches PBS, drinks white wine, and eats brie. It is quite another to say that income and social class will predict such basics as child mortality rates and functional illiteracy. As things stand now, with one in five children living in poverty, low income is strongly associated with the incidence of all forms of social pathology affecting young children. We must make progress on this problem.

Community Responsibility: For any research-driven prevention policy to work, it must assume that the community has a clear and explicit responsibility for children. Conducting public discussion around principles of parental autonomy and family privacy, as opposed to collective responsibility for the quality of life for young children is an impediment to successful prevention initiatives. Currently we define early childhood as a domain in which family privacy is the preeminent value. Thus, young children are officially invisible from the time they leave the hospital after birth until they are required to begin formal education at age 6. The community has a stake in how well children are raised and cared for. When development is impaired, we eventually pay the price in delinquency, crime, and economic dependency.

Skimming vs. Comprehensiveness: Any prevention program that simply opens its doors and invites participation is likely to skim off the easiest to reach families, and miss the children most at risk for academic, social, and health failure. The issue thus is whether or not prevention initiatives are active in reaching out to achieve a high degree of comprehensiveness. This suggests that evaluation studies should assess a program's net impact on the community with respect to the targeted child development outcomes. It is not enough to conduct simply internal evaluation of the program in terms of its specific and often self selected clientele. Even Head Start, our nation's flagship early childhood intervention program, only reaches a minority of those for whom the program is intended.

Child-Focused Institutions: As institutions move into the field of prevention in early childhood, a series of concerns emerge about ideology and agenda. For example, there is currently a great deal of concern about public school systems taking on responsibility for early childhood education programs. Part of this concern is the fear that schools will simply impose a watered-down elementary school curriculum onto 3-4 year olds. Most experts in the field of early childhood education believe this will not serve the interests of young children. Young children need a curriculum much more clearly focused on play (particularly fantasy play) to enhance their development. Similar concerns arise when profit-making institutions enter the field of childcare. Here the concern is that management geared to maximizing the bottom line is not necessarily compatible with meeting the developmental needs of young children.

One final policy issue serves as a context for all that has gone before. Prevention programs aimed at young children rarely succeed unless they involve a sympathetic institutional setting. Even the best model program can become non-functional when set within a hostile or incompetent institutional situation. This is a major issue confronting many efforts to inject innovative early childhood education model programs into school systems and childcare institutions plagued by cultural insensitivity, bureaucratic inflexibility, administrative stifling of innovation, or staff incompetence. Years ago curriculum development specialists sometimes sought to "teacher proof" their materials as a way of ensuring that the materials would have the desired effect regardless of teacher motivation or skill. This did not work. Now we face the problem of programmatic innovations that go the next step of attempting to "system proof" their models. This occurs when new approaches are disseminated in the absence of a receptive institutional host. This too is likely to fail. Short term training to communicate early childhood prevention models is insufficient. Long term staff training, institutional leadership development, and community education are essential to build a context in which effective prevention programs can flourish. There is no quick and easy "magic bullet," only sustained program development conducted within the context of intelligent and enlightened social policy.

Chairman MILLER. Dr. Botvin.

STATEMENT OF GILBERT J. BOTVIN, PH.D., ASSOCIATE PROFESSOR AND DIRECTOR, LABORATORY OF HEALTH BEHAVIOR RESEARCH, CORNELL UNIVERSITY MEDICAL COLLEGE, NEW YORK, NY

Dr. BOTVIN. Good morning, Mr. Chairman, Committee Members. I'm happy to be here this morning. My mandate today is to talk about the issue of tobacco, alcohol and drug abuse prevention, to say a few words about what we know that doesn't work and what we know that works or at least looks promising, and then to say a word at the end about the relationship between substance abuse and other important areas that relate to adolescent problem behaviors or health compromising behaviors and the need for more comprehensive approaches, rather than more narrowly defined problem-specific approaches.

Large numbers of teenagers, as you all know, begin using a variety of psychoactive substances each year, notwithstanding the fact that most are fully aware of the adverse consequences of use. Clearly, substance abuse, and here I use the more generic term in order to include tobacco and alcohol with illicit drugs, continues to be one of the most important problems facing our society. Substance use among our youth remains at an unacceptably high level in spite of our best efforts. The treatment of substance abusers is costly and only moderately effective. As a consequence, the idea of developing effective prevention approaches has held a great deal of intrinsic appeal. At this point, the potential of preventive approaches is just beginning to be realized.

Traditional approaches to substance abuse prevention have generally involved providing students with factual information about the adverse health, social and legal consequences of using drugs. Many programs have relied on the use of scare tactics, trying to scare kids into not smoking or drinking or using drugs. Unfortunately, these kinds of prevention programs when carefully evaluated have consistently been found to be ineffective. In fact, approaches which supply drug-specific information as some of them do, may even increase experimental use by stimulating curiosity.

Yet, despite the fact that these kinds of programs do not work, they remain the most common type of prevention program being offered to children and adolescents throughout the United States today. Teachers feel comfortable providing kids with facts and somehow it seems only logical that if students were sufficiently aware of the adverse consequences of smoking, drinking and using drugs they would simply make a rational decision not to do so. Still, the weight of scientific evidence is to the contrary.

The challenge to the field of prevention, particularly drug abuse prevention, over the past decade, has been to prove that prevention programs can actually work, that they can not only impact on knowledge, on attitudes and on beliefs, but that they can actually impact on behavior, that they can actually in fact reduce substance use.

In recent years, there has been a virtual explosion of research in the area of substance abuse prevention. This research has led to a number of exciting developments.

During the past few years, we have seen the development and testing of what many experts regard as a "new generation" of substance abuse prevention models. This new generation of prevention approaches differs from more traditional approaches in several ways. First, these approaches are based on more complete conceptualizations of the basic causes of substance abuse.

Second, they are grounded in theory. And third, they use well tested techniques for teaching basic coping skills as well as techniques for teaching kids how to resist negative social influences to smoke, drink excessively or use drugs.

Perhaps most important of all, these prevention models have been subjected to very careful and rigorous evaluation using well accepted scientific methods. I'm happy to be able to tell you this morning that the results of evaluation studies testing these approaches at this point provide considerable cause for optimism.

The first major breakthrough in this area came with respect to cigarette smoking. As we all know, cigarette smoking has been of major importance with respect to prevention because it is now generally recognized as one of the most important preventable causes of death and disability in the United States today and because cigarette smoking is one of the so-called gateway substances since it occurs at the very beginning of substance use progression, along with alcohol and marijuana.

More recently, the approaches which have been found to be effective in preventing or deterring the onset of cigarette smoking have also been applied to other gateway substances.

One type of successful prevention strategy focuses primarily on the social influences believed to promote substance abuse. That is to say, teaching students techniques for effectively resisting social influences to smoke, drink or use drugs, such as how to say "no" effectively and confidently when confronted with peer pressure to smoke.

The other type of approach, which is referred to as a "competency enhancement approach," focuses greater attention on teaching students a broad range of life skills designed to enhance general personal and social competence, thereby reducing potential motivations to use drugs.

The social influence model, the first model that I mentioned, typically includes components designed to increase students' awareness of the kinds of social influences promoting substance use, teaching specific skills for resisting those influences and finally, components designed to correct the misperception that smoking, drinking excessively or using illicit drugs is something that everybody is doing.

The second type of approach, the competency enhancement approach, has as its distinguishing features the following:

They generally include the teaching of generic problem solving and decision making skills, general skills for resisting social influences such as those coming from peers and the media, skills for increasing personal control and self-esteem, adaptive coping strategies for relieving stress and anxiety, general social skills, and general assertive skills.

The intent of these programs is to teach relatively general life skills that are applicable to a variety of situations rather than being specific to one particular problem or one particular situation.

A number of variations on these approaches have been tested over the last five or six years. The most effective programs now appear to be those that include components of both types of models, both the more specific social influence model and the more general coping skills model.

At this point there are well over 20 studies published in well respected scientific journals which demonstrate the effectiveness of these newer prevention strategies. With respect to cigarette smoking, they have demonstrated reductions in the proportion of new junior high school age students beginning to smoke cigarettes of between 30 and 75 percent.

In our own work at Cornell University Medical College with a prevention program called Life Skills Training, we have been able to demonstrate rather consistently in study after study reductions of approximately 50 percent or more. In one study, when additional booster sessions were provided during the following year, that is to say in the 8th grade, after intervening also in the 7th grade, in comparing the program group to the control group, we were able to demonstrate reductions in cigarette smoking of 87 percent.

Similar reductions have been found with respect to alcohol and marijuana use, with the proportion of marijuana users in one study being reduced by 83 percent.

Most of the research done with these newer prevention programs that fall under the general rubric of this new generation of prevention programs has focused primarily on junior high school students, and as Dr. Hamburg noted earlier, has primarily focused on white, middle class populations.

Moreover, the research studies conducted so far have only tested the effectiveness of these prevention models on the so-called gateway substances of tobacco, alcohol and marijuana. Additional research clearly needs to be conducted to determine the effectiveness of these approaches on illicit drugs such as cocaine, as well as to evaluate the long-term effectiveness of these approaches and determine their effectiveness with a broad range of students.

From a policy perspective, it is important to continue providing sufficient funding to provide for the additional research that is needed to help further refine these prevention models. It is also important that some mechanism be developed to increase the degree to which these kinds of approaches are being used throughout the country, rather than those approaches which have been proven to be ineffective.

School officials and community leaders need to be made aware of the types of programs that are the most effective and encouraged to use these programs. Although considerable money has been made available recently for school-based substance abuse prevention programs, little guidance has been provided to local school districts on how to use this money. Unless some restrictions or at least guidance is provided for use of federal funds supporting drug abuse prevention programs much of this money is likely to be wasted. Most schools will unwittingly spend the money on conventional approaches, which clearly do not work.

There appears to be a general consensus concerning the importance of drug abuse as a national problem and the need for drug abuse prevention to become higher on the national agenda.

Some researchers may argue that we should delay disseminating these promising programs until some point in the future when we know still more about the causes of substance abuse and have refined these prevention programs further still. However, given the nature and urgency of the problem of substance abuse, I would strongly argue that a serious and well-coordinated effort be made to disseminate this new generation of prevention programs at the national level. This means providing funds for training and for materials.

One way to facilitate dissemination and adoption of the most promising substance abuse prevention models would be to establish regional Prevention Resource Centers. These centers could help provide the necessary linkages between prevention researchers and communities interested in obtaining technical assistance to develop and implement the most effective prevention programs possible.

At the same time, we should push forward with additional research and take advantage of the momentum that has been developed over the past few years.

I have addressed myself today solely to school-based approaches to substance abuse prevention. However, given the seriousness and complexity of the problem of substance abuse in our society, it will obviously take a concerted effort by teachers, school officials, lawmakers, community leaders, parents, and law enforcement officials working together to make the kind of progress that will ultimately be necessary to solve this important problem.

In closing, let me say a word about the relationship between substance abuse and other adolescent problems. The available research evidence now suggests that many health compromising or problem behaviors such as substance abuse, teenage pregnancy, truancy, delinquency, and perhaps even suicide appear to have highly similar causes. Moreover, the kinds of prevention programs that thus far appear to be the most promising, particularly the broader based ones, have special relevance today because of their potential as AIDS risk reduction programs or as AIDS prevention programs.

However, the current system of categorical funding discourages research that crosses traditionally defined boundaries, making it extremely difficult to develop and test prevention approaches that might have a positive impact on several adolescent problem areas at the same time.

I would therefore strongly urge that some mechanism be established that would facilitate prevention efforts designed to target several of these problem areas at the same time.

Moreover, in addition to the development of effective school-based prevention programs, I also echo the remarks that have been made thus far today about the importance of providing teenagers with meaningful roles and options in our society, particularly mechanisms for helping them to become more involved in the community, by focusing with increased vigor and effort on the various institutions in our society that relate directly to adolescents, particularly trying to strengthen the schools and families.

And finally, I think it's important to provide for expansion of programs that now exist for youth, such as internship programs with business and the government that provide training for students with respect to the development of job skills as well as summer job programs.

Chairman **Miller**. Thank you very much.

[Prepared statement of Gilbert J. Botvin, Ph.D., follows:]

PREPARED STATEMENT OF GILBERT J. BOTVIN, PH.D., ASSOCIATE PROFESSOR AND DIRECTOR, LABORATORY OF HEALTH BEHAVIOR RESEARCH, CORNELL UNIVERSITY MEDICAL COLLEGE, NEW YORK, NY

Good morning, Mr. Chairman and Committee Members. My name is Dr. Gilbert J. Botvin. I am an Associate Professor of Psychology in the Departments of Public Health and Psychiatry at Cornell University Medical College, where I am also Director of Cornell's Laboratory of Health Behavior Research. I have been working in the general area of health promotion and disease prevention for the past decade, spending much of my time and energy conducting drug abuse prevention research. I have served as a consultant to a number of state and federal agencies concerning issues relating to both health promotion and drug abuse prevention. Among other things, I was responsible for writing the section of the National Institute on Drug Abuse's First and Second Triennial Report to Congress which summarized the current state of knowledge concerning drug abuse prevention.

Large numbers of teenagers begin using a variety of psychoactive substances each year, notwithstanding the fact that most are fully aware of the adverse consequences of use. Clearly substance abuse (and here I use the more generic term in order to include tobacco and alcohol with illicit drugs) continues to be one of the most important problems facing our society. Substance use among our youth remains at an unacceptable level in spite of our best efforts. The treatment of substance abusers is costly and only moderately effective. As a consequence, the idea of developing effective prevention approaches has held a great deal of intrinsic appeal. At this point, the potential of preventive approaches are just beginning to be realized.

Traditional approaches to substance abuse prevention have generally involved providing students with factual information about the adverse health, social, and legal consequences of using drugs. Many approaches have relied on the use of scare tactics. Unfortunately, these kinds of prevention programs when carefully evaluated have consistently been found to be ineffective. In fact, approaches which supply drug-specific information may even increase experimental use by stimulating curiosity.

Yet, despite the fact that these kinds of programs do not work, they remain the most common type of prevention program being offered to children and adolescents throughout the United States. Teachers feel comfortable providing kids with facts and, somehow, it seems only logical that if students were sufficiently aware of the adverse consequences of smoking, drinking, and using drugs that they would simply make a rational decision not to do so. Still, the weight of scientific evidence is to the contrary.

The challenge to the field of prevention over the past decade has been to prove that prevention programs actually work--that they can not only impact on knowledge, on attitudes, and on beliefs, but can actually impact on behavior--that they can in fact reduce substance use. In recent years, there has been a virtual explosion of research in the area of substance abuse prevention. This research has led to a number of exciting developments.

During the past few years, we have seen the development and testing of what many experts regard as a "new generation" of substance abuse prevention models. This new generation of prevention approaches differs from more traditional approaches in several ways. First, they are based on more complete conceptualizations of the basic causes of substance abuse. Second, they are grounded in theory. And, third, they use well-tested techniques for teaching basic coping skills as well as techniques for resisting negative social influences to smoke, drink excessively or use drugs. Perhaps most important of all, these prevention models have been subjected to careful evaluation using well-accepted scientific methods. The results of evaluation studies testing these approaches provide considerable cause for optimism.

The first major breakthrough in this area came with respect to cigarette smoking. Cigarette smoking was a major focus of much research because it is widely recognized as the most important preventable cause of death and disability in the U.S. today and because cigarette smoking is one of the so-called "gateway" substances since it occurs at the very beginning of the substance use progression (along with alcohol and marijuana). More recently, the approaches which have been found to be effective in preventing or deterring the onset of cigarette smoking have also been applied to other "gateway" substances.

This new generation of substance abuse prevention programs can be best thought of as falling on a continuum. Some programs focus very specifically on a particular problem or target behavior (such as cigarette smoking); others have a more general orientation. All of these approaches place primary emphasis on the psychological and social factors associated with the initiation and early stages of substance abuse rather than focusing on knowledge or attitudes about drugs.

One type of successful prevention strategy focuses primarily on the social influences believed to promote substance abuse--teaching students techniques for effectively resisting social influences to smoke, drink, or use drugs (such as how to effectively and confidently say "no" when confronted by peer pressure to smoke). The other approach focuses greater attention on teaching students a broad range of life skills designed to enhance general personal and social competence, thereby reducing potential motivations to use drugs. A number of variations on these two approaches has been tested. The most effective programs appear to be those that include components of both the more specific social influence/pressure resistance model and the more general coping skills model.

At this point, there are over 20 studies published in well-respected scientific journals which demonstrate the effectiveness of these newer prevention strategies. With respect to cigarette smoking, they have demonstrated reductions in the proportion of new junior high school age cigarette smokers of between 30% and 75%. In our own work with a prevention program called Life Skills Training, we have been able to demonstrate rather consistently in study after study reductions of 50% or more. In one study, when additional booster sessions were provided during the following year, the proportion of new cigarette smokers was reduced by 87% compared to a control group of students not receiving this prevention program. Similar reductions have been found with respect to alcohol and marijuana use, with the proportion of marijuana users being reduced in one study by 83%.

The social influence approaches have typically included components designed to: (1) increase students' awareness of the kinds of social influences promoting substance use, (2) teach specific skills for resisting those influences, and (3) correct the misperception that smoking, drinking excessively, or using illicit drugs is something that everybody is doing.

The primary distinguishing features of the broader-based approaches are that they generally teach: (1) general problem solving and decision making skills; (2) general skills for resisting social influences (such as those coming from peers or the media); (3) skills for increasing personal control and self esteem; (4) adaptive coping strategies for relieving stress and anxiety; (5) general social skills, and (6) general assertive skills. The intent of these programs is to teach relatively general life skills that are applicable to a variety of situations, rather than being specific to one particular problem or situation.

Most of the research done with this new generation of prevention approaches has focused on junior high school students. Moreover, the research studies conducted so far have only tested the effectiveness of these prevention models on the so-called gateway substances of tobacco, alcohol, and marijuana. Additional research clearly needs to be conducted to determine the effectiveness of these approaches on illicit drugs such as cocaine, evaluate the long-term effectiveness of these approaches, and determine their effectiveness with a broad range of students.

From a policy perspective, it is important that sufficient funding remains available for conducting the additional research that is needed to help further refine these prevention models. It is also important that some mechanism be developed to increase the degree to which these kinds of approaches are being used throughout the country, rather than approaches which have been proven to be ineffective. School officials and community leaders need to be made aware of the types of programs that are the most effective and encouraged to use them. Although considerable money has been made available recently for school-based substance abuse prevention programs, little guidance has been provided to local school districts in how to use the money. Unless some restrictions are placed on the use of federal funds supporting drug abuse prevention, most schools will unwittingly spend the money on conventional approaches which clearly do not work. In other words, much of the money is likely to be wasted.

There appears to be a general consensus of the importance of drug abuse as a national problem and the need for drug abuse preventiion to become a national priority. We can wait for some point in the future when we know still more about the causes of substance abuse and have developed more effective prevention programs. However, given the nature and urgency of the problem, I would strongly argue that a serious and well-coordinated effort be made to disseminate this new generation of prevention programs on a national level. This means providing funds for training and materials.

One way to facilitate dissemination and adoption of the most promising substance abuse prevention models would be to establish regional Prevention Resource Centers. These centers could help provide the necessary linkage between prevention researchers and communities interested in obtaining technical assistance to develop and implement the most effective prevention programs possible. At the same time, we should push forward with additional research and take advantage of the momentum that has been developed over the past few years.

I have addressed myself solely to school-based approaches to substance abuse prevention. However, given the seriousness and complexity of the problem of substance abuse in our society, it will obviously take a concerted effort by teachers, school officials, community leaders, parents, and law enforcement officials working together to make the kind of progress that will be ultimately necessary to solve this important problem.

In closing, let me say that the available research evidence now indicates that many health compromising or problem behaviors such as substance abuse, teenage pregnancy, truancy, delinquency, and perhaps even adolescent suicide appear to have highly similar causes. The current system of categorical funding discourages research which crosses traditionally defined boundaries. Research should be encouraged which supports prevention efforts designed to target several of these problem areas at the same time.

Chairman MILLER. Mr. Kenny.

STATEMENT OF ROBERT A. KENNY, ED.D., ASSOCIATE, GRADUATE SCHOOL OF EDUCATION, HARVARD UNIVERSITY, CAMBRIDGE, MA, AND CONSULTANT, JOSEPH P. KENNEDY, JR. FOUNDATION, WASHINGTON, DC

Mr. KENNY. Good morning, Mr. Chairman, distinguished members of the committee.

Thank you for inviting me to be here to testify and thank you for spending so much of your valuable time looking at many of these important issues. I'm here this morning to talk about teenage pregnancy and premature sexual activity.

With over a million teenagers becoming parents annually, one birth in every seven is to an adolescent mother. Although the birth rates for all adolescents have actually dropped in recent years, rates for youngest teens, those between 10 and 14 years old, have actually risen. There are currently between 20 and 29 million adolescent boys and girls in this country of whom one third to one half are sexually active.

This reflects a rate that is not dropping. More and more young adolescents are becoming sexually active and subsequently pregnant at earlier years. The impact of children having children is enormous, especially for the babies, who face a significantly increased risk of mental retardation, low birthweight and birth defects.

There is also a great impact on the lives of adolescent mothers, who typically have a high dropout rate. In a large national study, 80 percent of all teen mothers never completed high school.

The suicide rate among adolescent parents is seven times that of nonparenting adolescents. These consequences also result in a negative impact on the families of adolescent parents as well as the larger community. Adolescent parents face virtual certain poverty, and as you know, 50 percent of the children of adolescent mothers will be raised in a single-parent household in poverty.

The Community of Caring Program is one that responds to this national crisis of adolescent pregnancy. The successful program, which operates in health and human services agencies and schools across the country, is in its tenth year.

The Community of Caring is based on the belief and evidence that teenagers frequently become sexually active and risk pregnancy not just out of ignorance, but out of lovelessness, not out of an absence of values, but often out of poorly considered values, not just because contraception isn't available but because decisions about their own sexuality have not been placed in any context, a context of respect, of care, of responsibility for both themselves and for others.

Studies indicate that adolescent girls with low self-esteem and poor school attendance are more likely to become pregnant than are girls with high self-esteem and good school attendance. By creative, supportive and caring environments we can improve self esteem and school attendance of participants. The primary goal of the community of caring is to help all adolescents make responsible decisions about their own sexuality. This is done in two ways.

The first method is the Community of Caring's curriculum, and second, an equally important method, is the creation of a community within the school or the agency that demonstrates concern and caring for the members of that community.

The program includes a value based curriculum that provides educators, parents, and adolescents with facts and approaches to discuss with each other such issues as family, love, sexuality, health, and responsible planning for the future.

The curriculum, by emphasizing caring and respect, also promotes the social development of participants. Growing up Caring, the name of the curriculum, is an interdisciplinary curriculum presented through a variety of media and methods. It includes a teacher's guide. It includes sections written by experts in their field that can be adapted in a variety of areas such as health, physical education, social studies, English and others.

I'd like to emphasize this morning that the Community of Caring promotes caring for both self and others and responsible decision-making in its work.

But important as the curriculum is, the program ultimately depends on the capacity of the staff and the practice of the stated goals of a responsive and cooperative environment.

This supportive environment helps teenagers to develop meaningful, healthy, helpful relationships. Such relationships promote self-esteem, and are based on and demand respect, equality and dignity.

These positive relationships, challenge the tyranny of peer pressure and in such relationships individuals feel free to assert their own needs and not fall into the danger of being submerged by pressures of other persons or other groups nor do they need to succumb to the danger of one individual exploiting another.

These positive relationships have meaningful and open communication and are built around activities, common interests and community endeavors. Within this supportive environment, adolescents feel free to build interpersonal skills necessary for mature and responsible human sexuality.

The Community of Caring properly places issues of value and adolescent decision making in the context of relationships between individuals in the community. Through repeated efforts at learning to trust, participants discover that doing so entails risk and requires self discipline but also brings rewards. The staff as well as the adolescents learn together to realize their hopes in everyday life. This context of trust and committed relationships is the real basis for the development of judgment and appreciation of what the curriculum calls peer values—values such as self-esteem, self-discipline, family and caring. Relationships experienced and reflected on within the community provide models for adolescents struggling to relate better to their bodies, their families, themselves and to others.

William Sullivan describes the Community of Caring Program in the following way:

> In its widest aim, this program tries to bring teenagers into a full community life, one which includes not only the teens and the teachers and the staff and counselors, but the families of the teens, and as many groups and organizations as possible, social service agencies, volunteer groups and local businesses. The teaching strategy,

and this is a strategy at work here, is to present within the context of support a sustained, reflective and ethical engagement. The hope is that in this new context, stronger, fuller and more realistic aspirations can take form, in part because such ideals are discussed and modeled by the staff but also because the Community of Caring provides a place where such aspirations can make sense in a very practical way.

The program supposes that these values do not need to be imposed, that they can be seriously examined Socratically because in such a context, a person grows freely and is more able to decide for himself and herself.

The goals of the Community of Caring include: creating a place where students and parents and teachers and community members have their voices heard on school policies and other issues that affect the lives of adolescents. Giving adolescents the opportunity to partake and participate in decision-making is an important part of their education. Permitting responsible decision-making with special emphasis on sexual decision-making, promoting meaningful, non-sexual friendships among adolescents, teaching and promoting universal values of caring, respect, responsibility, honesty and family, promoting good health and physical fitness, promoting planning and preparation for the future as responsible, caring adults. Also responding to the adolescent crisis including adolescent pregnancy and parenting and inappropriate sexual behavior and school dropout.

The Community of Caring was initially developed to respond to the needs of adolescent parents and their families.

Since its inception in 1977, the Community of Caring has served thousands of adolescent mothers and adolescents and their families. Through evaluation of the program throughout the country it has been determined that Community of Caring participants have a higher rate of returning to high school and graduating, a 30 percent higher rate of returning within one year on the national average significantly reduced drug and alcohol abuse, twice the average full or part time employment (than the national average for adolescents). They have greatly decreased rates of repeat pregnancies, 85 percent fewer repeat pregnancies than the national average, and they show a substantial reduction in low birthweight, 45 percent less than the national average. They have an infant mortality rate of near zero even in high infant mortality areas.

Participants receive higher quality and more comprehensive prenatal care than did their peers not in the program. This is particularly important because adolescent mothers throughout the nation, young women most in need of prenatal care and poor, are the least likely to receive it.

The Community of Caring has recently expanded to include primary prevention of adolescent pregnancy by creating community of caring programs in schools across the country.

The first of these school programs has begun in New Haven, Connecticut and in Los Angeles, Calfornia. Several other schools and school systems are preparing to create Community of Caring Schools.

It is my firm belief that the impact of the school programs and school settings will be as powerful as the impact has been and continues to be in health and human services agencies over the past ten years.

Thank you.

Chairman MILLER. Thank you very much.

[Prepared statement of Robert A. Kenny follows:]

PREPARED STATEMENT OF ROBERT A. KENNY, ED.D., ASSOCIATE, GRADUATE SCHOOL OF EDUCATION, HARVARD UNIVERSITY, AND CONSULTANT, JOSEPH P. KENNEDY, JR. FOUNDATION, WASHINGTON, DC

TEENAGE PREGNANCY AND PREMATURE SEXUAL ACTIVITY HAVE BECOME A NATIONAL CRISIS OF GREAT PROPORTIONS. OVER A MILLION TEENAGERS BECOME PREGNANT ANNUALLY. HALF OF THESE GIVE BIRTH TO THEIR CHILDREN. ONE BIRTH IN EVERY SEVEN, IN THE UNITED STATES, IS TO AN ADOLESCENT MOTHER. ALTHOUGH THE BIRTH RATES FOR ALL ADOLESCENTS HAVE ACTUALLY DROPPED IN RECENT YEARS, THE RATES FOR THE YOUNGEST "TEENS" (THOSE FROM TEN TO FOURTEEN YEARS OLD) HAVE ACTUALLY RISEN. THERE ARE CURRENTLY BETWEEN 20 AND 29 MILLION ADOLESCENT BOYS AND GIRLS IN THE UNITED STATES, OF WHOM ONE THIRD TO ONE HALF ARE SEXUALLY ACTIVE: THIS REFLECTS A RATE THAT IS NOT DROPPING. MORE AND MORE YOUNG ADOLESCENTS ARE BECOMING SEXUALLY ACTIVE AND SUBSEQUENTLY PREGNANT AT EARLIER AGES.

THE IMPACT OF CHILDREN HAVING CHILDREN IS ENORMOUS, ESPECIALLY FOR THE BABIES WHO, FOR A VARIETY OF REASONS, FACE A SIGNIFICANTLY INCREASED RISK OF MENTAL RETARDATION, LOW-BIRTH-WEIGHT, AND BIRTH DEFECTS. THERE IS ALSO A DEVASTATING IMPACT ON THE LIVES OF ADOLESCENT MOTHERS WHO, TYPICALLY, HAVE A VERY HIGH DROPOUT RATE FROM SCHOOL, HIGH WELFARE DEPENDENCY AND A SIGNIFICANT RATE OF CHILD ABUSE. IN A LARGE NATIONAL STUDY, 80% OF ALL TEEN MOTHERS NEVER COMPLETED HIGH SCHOOL. THE SUICIDE RATE AMONG ADOLESCENT PARENTS IS SEVEN TIMES THAT OF NON-PARENTING ADOLESCENTS. THESE CONSEQUENCES ALSO RESULT IN NEGATIVE IMPACT ON THE FAMILIES OF ADOLESCENT PARENTS, AS WELL AS THE LARGER COMMUNITY. ADOLESCENT PARENTS FACE VIRTUAL CERTAIN POVERTY, AND FIFTY PERCENT OF THE

CHILDREN OF ADOLESCENT MOTHERS WILL BE RAISED IN A SINGLE PARENT HOUSEHOLD IN POVERTY.

HISTORY

THE COMMUNITY OF CARING IS A VALUES-BASED HEALTH AND EDUCATION PROGRAM THAT RESPONDS POSITIVELY TO THE NATIONAL CRISIS OF ADOLESCENT PREGNANCY. THE COMMUNITY OF CARING IS OPERATED AS A NON-PROFIT ORGANIZATION, DEVELOPED AND SPONSORED BY THE JOSEPH P.KENNEDY, JR. FOUNDATION. THIS SUCCESSFUL PROGRAM, WHICH OPERATES IN HEALTH AND HUMAN SERVICE AGENCIES AND SOME SCHOOLS ACROSS THE COUNTRY, IS IN ITS TENTH YEAR. OVER 300 SITES THROUGHOUT THE NATION USE THE COMMUNITY OF CARING APPROACH. THIS NUMBER INCLUDES FIVE MAJOR REGIONAL TRAINING AND RESOURCE CENTERS IN BOSTON, ALBANY, ELKINS (WEST VIRGINIA), KANSAS CITY, AND HOUSTON.

THE COMMUNITY OF CARING IS BASED ON THE BELIEF AND THE EVIDENCE THAT TEENAGERS FREQUENTLY BECOME SEXUALLY ACTIVE AND RISK PREGNANCY NOT OUT OF IGNORANCE, BUT OUT OF LOVELESSNESS; NOT OUT OF AN ABSENCE OF VALUES, BUT OFTEN OUT OF POORLY CONSIDERED VALUES; NOT BECAUSE CONTRACEPTION IS UNAVAILABLE, BUT BECAUSE DECISIONS ABOUT THEIR SEXUALITY HAVE NOT BEEN PLACED IN THEIR PROPER MORAL CONTEXT OF RESPECT, CARE AND RESPONSIBILITY FOR BOTH THE SELF AND OTHERS.

STUDIES INDICATE THAT ADOLESCENT GIRLS WITH LOW SELF ESTEEM AND POOR SCHOOL ATTENDANCE ARE MORE LIKELY TO BECOME

PREGNANT THAN ARE GIRLS WITH HIGH SELF ESTEEM AND GOOD SCHOOL ATTENDANCE. CREATING A SUPPORTIVE AND CARING ENVIRONMENT HELPS IMPROVE BOTH THE SELF ESTEEM AND SCHOOL ATTENDANCE OF PARTICIPANTS.

THE PRIMARY GOAL OF A COMMUNITY OF CARING SCHOOL IS TO HELP ALL ADOLESCENTS MAKE RESPONSIBLE DECISIONS ABOUT THEIR OWN SEXUALITY. THIS IS DONE IN TWO WAYS. THE FIRST METHOD IS THROUGH THE COMMUNITY OF CARING'S CURRICULUM. THE SECOND AND EQUALLY IMPORTANT METHOD IS THE CREATION OF A COMMUNITY THAT INCLUDES THE HOME, THE COMMUNITY AT LARGE AND THE SCHOOL OR AGENCY THAT DEMONSTRATES CONCERN AND CARING FOR ITS MEMBERS.

CURRICULUM: GROWING UP CARING

THE COMMUNITY OF CARING INCLUDES A COMPREHENSIVE VALUES-BASED CURRICULUM THAT PROVIDES EDUCATORS, PARENTS, AND ADOLESCENTS WITH FACTS, LEARNING ACTIVITIES AND APPROACHES NEEDED TO ENGAGE IN A DIALOGUE ON FAMILY, LOVE, SEXUALITY, HEALTH, AND RESPONSIBLE PLANNING FOR THE FUTURE. THE CURRICULUM, BY EMPHASIZING THE VALUES OF CARING AND RESPECT ALSO HELPS PROMOTE THE MORAL DEVELOPMENT OF THE MEMBERS OF THE COMMUNITY.

GROWING UP CARING IS A MULTIFACETED, INTER-DISCIPLINARY CURRICULUM PRESENTED THROUGH A VARIETY OF MEDIA AND METHODS, INCLUDING A CLEARLY CONSTRUCTED TEACHER'S GUIDE. THE

CURRICULUM, DEVELOPED UNDER THE SUPERVISION OF EUNICE KENNEDY SHRIVER, INCLUDES SECTIONS WRITTEN BY EXPERTS IN THEIR FIELDS. THE CURRICULUM INCLUDES MODULES THAT CAN BE ADOPTED FOR USE IN A VARIETY OF SUBJECT AREAS INCLUDING HEALTH, PHYSICAL EDUCATION, SOCIAL STUDIES, ENGLISH AND OTHERS. IN ITS MODULES, GROWING UP CARING PROMOTES CARING FOR BOTH SELF AND OTHERS AND RESPONSIBLE SEXUAL DECISION MAKING. TOPICS OF THE MODULES INCLUDE:

HEALTH AND NUTRITION
AVOIDING RISKS (DRUGS AND ALCOHOL)
PLANNING AHEAD
GETTING AND KEEPING A JOB
LEARNING TO COMMUNICATE
FRIENDSHIP, SEX, LOVE, MARRIAGE
FAMILY
BEING A PARENT
AVOIDING HARM (SEXUALLY TRANSMITTED DISEASES)
FAMILY DEVELOPMENT
SERVING THE COMMUNITY

IMPORTANT AS THE CURRICULUM IS, THE PROGRAM ULTIMATELY DEPENDS UPON THE CAPACITY OF ITS STAFF TO REALIZE IN THEIR DAILY PRACTICE THE STATED GOALS OF A RESPONSIVE AND COOPERATIVE ENVIRONMENT.

RESPONSIBLE DECISION-MAKING

THE COMMUNITY OF CARING PROMOTES RESPONSIBLE DECISION-MAKING BY PROMOTING THE ETHICAL DEVELOPMENT OF ADOLESCENTS. AS THE NAME IMPLIES, COMMUNITIES OF CARING ARE MADE UP OF PEOPLE WHO EXPRESS FAMILY VALUES, WHO SUPPORT ADOLESCENTS, WHO OFFER ENCOURAGEMENT AND DIRECTION FOR ADOLESCENTS IN AN

ENVIRONMENT THAT IS ACCEPTING AND BASED ON THE UNIVERSAL ETHICAL VALUES OF FAMILY, RESPONSIBILITY, SELF-RESPECT, PLANNING FOR THE FUTURE, HONESTY AND CARING.

THE SUPPORTIVE COMMUNITY OF CARING ENVIRONMENT HELPS TEENS TO DEVELOP MEANINGFUL, HEALTHY, CONSTRUCTIVE RELATIONSHIPS. SUCH RELATIONSHIPS ARE BASED ON AND DEMAND RESPECT, EQUALITY, AND DIGNITY. THESE POSITIVE RELATIONSHIPS CHALLENGE THE TYRANNY OF PEER PRESSURE. IN SUCH RELATIONSHIPS INDIVIDUALS FEEL FREE TO ASSERT THEIR OWN NEEDS AND NOT FALL TO THE DANGER OF BEING SUBMERGED BY PRESSURES OF OTHER PERSONS OR GROUPS, NOR SUCCUMB TO THE DANGER OF ONE INDIVIDUAL EXPLOITING ANOTHER. THESE POSITIVE RELATIONSHIPS HAVE MEANINGFUL AND OPEN COMMUNICATION AND ARE BUILT AROUND SHARED ACTIVITIES, COMMON INTERESTS AND VALUES, AND COMMUNITY ENDEAVORS.

WITHIN THIS SUPPORTIVE COMMUNITY OF CARING ENVIRONMENT, ADOLESCENTS FEEL FREE TO BUILD INTERPERSONAL SKILLS NECESSARY FOR MATURE AND RESPONSIBLE HUMAN SEXUALITY. THE COMMUNITY OF CARING PROPERLY PLACES ISSUES OF VALUE AND ADOLESCENT DECISION-MAKING IN THE CONTEXT OF RELATIONSHIPS BETWEEN INDIVIDUALS IN A COMMUNITY.

IT IS THROUGH REPEATED EFFORTS AT LEARNING TO TRUST, AND DISCOVERING THAT DOING SO REQUIRES SELF-DISCIPLINE BUT ALSO BRINGS REWARDS, THAT STAFF AS WELL AS ADOLESCENTS LEARN

TOGETHER TO REALIZE THEIR HOPES IN EVERYDAY LIFE. THIS CONTEXT OF TRUST AND COMMITTED RELATIONSHIPS IS THE REAL BASIS FOR THE DEVELOPMENT OF JUDGMENT AND THE APPRECIATION OF WHAT THE CURRICULUM CALLS "CORE VALUES": SELF-ESTEEM, SELF-DISCIPLINE, FAMILY AND CARING. RELATIONSHIPS EXPERIENCED AND REFLECTED ON WITHIN THE COMMUNITY PROVIDE "MODELS" FOR ADOLESCENTS STRUGGLING TO RELATE BETTER TO THEIR BODIES, THEIR EMOTIONS, THEIR FAMILIES, THEMSELVES AND OTHERS.

IN ITS WIDEST AIM, THE COMMUNITY OF CARING TRIES TO BRING TEENAGERS INTO A FULL COMMUNITY LIFE; ONE WHICH INCLUDES NOT ONLY THE TEENS AND THE STAFF OF TEACHERS AND COUNSELORS, BUT THE FAMILIES OF THE TEENS AND AS MANY LOCAL GROUPS AND ORGANIZATIONS AS POSSIBLE: SCHOOLS, RELIGIOUS ORGANIZATIONS, SOCIAL SERVICE AGENCIES, VOLUNTARY GROUPS AND LOCAL BUSINESSES. THE HOPE IS THAT IN THEIR STYLE OF OPERATION, AS WELL AS THROUGH SPECIFIC OUTREACH ACTIVITIES SUCH AS TEEN CLUBS AND LOCAL TEEN FORUMS, THE COMMUNITY OF CARING FUNCTIONS AS A COMMUNITY-BUILDING AGENT, OFTEN ENGAGING IN BOTH ORGANIZING AND "NETWORKING" AMONG DISPARATE GROUPS TO BRING THE IDEA OF "COMMUNITY" TO REALITY.

THE TEACHING STRATEGY AT WORK IN THE COMMUNITY OF CARING IS TO PROVOKE, WITHIN THE CONTEXT OF SUPPORT, A SUSTAINED, REFLECTIVE, ETHICAL ENGAGEMENT. IN EFFECT, WHEN IT WORKS WELL, THE PROGRAM ASKS ADOLESCENTS TO ASK THEMSELVES: "NOW IN LIGHT OF WHAT IT IS LIKE TO BE PART OF SUCH A COMMUNITY, LIVING THIS KIND OF LIFE (AS A COMMUNITY MEMBER), WHAT DO I WANT TO DO WITH MY LIFE?" THE HOPE IS THAT IN THIS NEW CONTEXT, STRONGER, FULLER AND MORE REALISTIC ASPIRATIONS CAN TAKE FORM, IN PART BECAUSE SUCH IDEALS ARE DISCUSSED AND MODELLED BY STAFF, BUT ALSO BECAUSE THE COMMUNITY OF CARING PROVIDES A PLACE WHERE SUCH ASPIRATIONS CAN "MAKE SENSE" PRACTICALLY, IN A WAY THEY DID NOT BEFORE. THE PROGRAM SUPPOSES THAT THESE VALUES DO NOT NEED TO BE IMPOSED, AND THAT THEY CAN BE SERIOUSLY EXAMINED "SOCRATICALLY" BECAUSE IN SUCH A CONTEXT A PERSON GROWS FREER AND MORE ABLE TO DECIDE FOR HIMSELF/HERSELF.

THE GOALS OF A COMMUNITY OF CARING INCLUDE:

- RESPONDING TO ADOLESCENT CRISES (INCLUDING ADOLESCENT PREGNANCY AND PARENTING, INAPPROPRIATE SEXUAL BEHAVIOR, AND SCHOOL DROPOUT);
- CREATING A PLACE WHERE STUDENTS, PARENTS, TEACHERS AND COMMUNITY MEMBERS HAVE THEIR VOICES HEARD ON SCHOOL POLICIES AND OTHER ISSUES THAT AFFECT THE LIVES OF ADOLESCENTS;
- PROMOTING RESPONSIBLE DECISION-MAKING, WITH SPECIAL EMPHASIS ON SEXUAL DECISION-MAKING;
- PROMOTING MEANINGFUL NON-SEXUAL FRIENDSHIPS AMONG STUDENTS;
- PROMOTING COMMUNICATION AMONG ADOLESCENTS, THEIR PARENTS, EDUCATORS AND OTHER ADULT PARTNERS IN THE SCHOOL PROGRAM;
- TEACHING AND PROMOTING UNIVERSAL VALUES OF CARING, RESPECT, RESPONSIBILITY, HONESTY AND FAMILY;
- PROMOTING GOOD HEALTH AND PHYSICAL FITNESS;
- PROMOTING PLANNING AND PREPARATION FOR THE FUTURE AS RESPONSIBLE, CARING ADULTS.

ACCOMPLISHMENTS AND IMPACT OF THE COMMUNITY OF CARING

THE COMMUNITY OF CARING WAS INITIALLY DEVELOPED TO RESPOND TO THE NEEDS OF PREGNANT ADOLESCENTS AND THEIR FAMILIES.

THE EFFECTS OF THE COMMUNITY OF CARING HAVE BEEN CAREFULLY EVALUATED. SINCE ITS INCEPTION IN 1977 WITH 300 SITES, THE COMMUNITY OF CARING HAS SERVED THOUSANDS OF ADOLESCENTS, ADOLESCENT MOTHERS, AND THEIR FAMILIES. THROUGH EVALUATIONS OF THE PROGRAM THROUGHOUT THE UNITED STATES, IT HAS BEEN DETERMINED THAT COMMUNITY OF CARING PARTICIPANTS:

- HAVE A HIGHER RATE OF RETURNING TO HIGH SCHOOL AND GRADUATION -- A 30% HIGHER RATE OF RETURN WITHIN ONE YEAR THAN THE NATIONAL AVERAGE.
- HAVE SIGNIFICANTLY REDUCED DRUG AND ALCOHOL ABUSE.
- HAVE SIGNIFICANTLY REDUCED CHILD ABUSE.
- HAVE TWICE THE AVERAGE OF FULL OR PART-TIME EMPLOYMENT THAN THE NATIONAL AVERAGE FOR ADOLESCENTS.
- HAVE A GREATLY REDUCED RATE OF REPEAT PREGNANCIES -- 85% FEWER REPEAT PREGNANCIES THAN THE NATIONAL AVERAGE.
- SHOW A SUBSTANTIAL REDUCTION IN LOW-BIRTH WEIGHT BABIES -- 45% LESS THAN THE NATIONAL AVERAGE.
- HAVE AN INFANT MORTALITY RATE OF NEAR ZERO, EVEN IN HIGH INFANT MORTALITY AREAS.
- RECEIVE HIGHER QUALITY AND COMPREHENSIVE PRENATAL CARE THAN DO THEIR PEERS NOT IN THE PROGRAM. THIS IS PARTICULARLY IMPORTANT BECAUSE ADOLESCENT MOTHERS THROUGHOUT THE NATION (YOUNG WOMEN MOST IN THE NEED OF PRENATAL CARE) ARE THE LEAST LIKELY TO RECEIVE IT.

COMMUNITY OF CARING SCHOOL

THE COMMUNITY OF CARING HAS RECENTLY EXPANDED ITS SCOPE TO INCLUDE PRIMARY PREVENTION OF ADOLESCENT PREGNANCY BY CREATING COMMUNITY OF CARING PROGRAMS IN SCHOOLS. THE FIRST OF THESE SCHOOL PROGRAMS HAVE BEGUN IN NEW HAVEN, CONNECTICUT AND IN LOS ANGELES, CALIFORNIA. SEVERAL OTHER SCHOOLS AND SCHOOL SYSTEMS ARE PREPARING TO CREATE COMMUNITY OF CARING SCHOOLS. THE ESTABLISHMENT OF COMMUNITY OF CARING SCHOOLS IN FIVE CITIES WILL BE SUPPORTED, IN PART, OVER THE NEXT THREE YEARS BY A $300,000 GRANT AWARDED TO THE COMMUNITY OF CARING, INC. WE FIRMLY BELIEVE THE IMPACT OF THIS PROGRAM IN SCHOOL SETTINGS WILL BE AS POWERFUL AS THE IMPACT HAS BEEN, AND CONTINUES TO BE, IN HEALTH AND HUMAN SERVICES AGENCIES OVER THE PAST TEEN YEARS.

Chairman MILLER. Mr. Price.

STATEMENT OF RICHARD H. PRICE, PH.D., EXECUTIVE DIRECTOR, MICHIGAN PREVENTION RESEARCH CENTER, UNIVERSITY OF MICHIGAN, ANN ARBOR, MI

Mr. PRICE. Good morning, Mr. Chairman, distinguished members of the committee.

I've been asked to discuss the question, what do successful prevention programs have in common? As I listen to my colleagues, I find much of what I have to say reinforces what they have already said. But first, let me give you some background.

For the last several years, the American Psychological Association has sponsored a Task Force on Promotion, Prevention and Intervention Alternatives. The mission of the Task Force has been to identify successful prevention programs where evidence of effectiveness was convincing. We hoped that the program models we identified could be disseminated more widely throughout the United States.

Early in the life of the Task Force, we contacted over 900 experts throughout the country who we believed were knowledgeable about prevention programs or had developed programs themselves. In response to our inquiries, we received 300 replies describing an extremely wide range of prevention efforts delivered in a range of family, school and community settings.

The Task Force set about examining these programs, searching for promising programs that had collected evidence of effectiveness and which were potentially replicable. From these 300 programs, we identified a much smaller set of 50 programs where research evidence for their effectiveness was available. After careful scrutiny of the research evidence that was offered for each of these 50 programs, we identified 14 programs which we believe can serve as models.

It is important to note that these programs are targeted at populations across the lifespan from preschool ages through mature adulthood and that they are delivered in a wide range of family, school and community settings. There are surely many more programs that we were not able to identify and the 14 programs are described briefly and have been entered into the record.

So the question remains, what do these successful programs have in common? While the programs are quite diverse and are directed at a wide range of populations, I believe there are several elements they share in common and can guide us in future prevention efforts.

First, the programs are targeted. These programs focus on groups for which there is a reasonably well-defined understanding of their risk status. Risk status is marked by such characteristics as age, income, minority group status, single parent household, marital status, or anticipation of some life transition such as entry into school or widowhood. For example, one of the programs which has been rigorously evaluated is targeted at rural, black preschool children at risk for mild mental retardation. Another is focused on low-income Mexican-American families with very small children.

A second feature of these programs is that they are designed to alter the developmental course and life trajectory in a positive direction. Successful prevention programs usually do more than produce a short term palliative effect. Instead, they are successful in changing the life circumstances of the individual in ways that alter the developmental course in a positive direction. Early preschool programs are clearcut examples of this, and incidentally these are programs that almost invariably have an important feature of parental involvement. While we do not have firm long-term evidence for the success of all of these programs, they are aimed at long-term change, setting individuals on new developmental courses, opening opportunities, changing life circumstances or providing new supports.

A third feature of these programs is that they either give people new skills to cope more effectively or provide support in the context of life transitions. An example of a program targeted at providing new skills for children provides preschool children and early grammar school children with interpersonal problem solving skills, teaching them to generate alternatives, evaluate solutions to problems and cope more effectively. A number of supportive programs exist especially oriented around life transitions like entry into school.

A fourth feature of these programs is that they provide new skills and support by strengthening the natural supports and resources of family, community or school settings.

These programs are successful only when they can be integrated with, and effectively strengthen, local community resources. Successful programs cannot be imposed exclusively from outside. Instead, they are the product of local community strengths combined with, and I emphasize this, well-developed repeatable program elements that have demonstrated preventative effects.

Finally, and I want to emphasize this, successful program have collected rigorous research evidence to demonstrate their success. While it may seem obvious to say so, our experience is that many promising programs have been developed without the expertise or resources to evaluate their effectiveness.

A program that has collected such rigorous evidence is the Perry early preschool enrichment program, which followed those children and a control group to the age of 19 and employed a rigorous research design. The findings included not only early scholastic increases, but later reductions in involvement in crime and delinquency, and use of welfare. The children who went through these programs had higher employment rates, and, in fact, cost/benefit analyses suggest that the benefits exceeded the cost invested in these programs by a factor of seven.

Rigorous research on prevention programs is expensive, time-consuming and absolutely essential if prevention programs for children, youth and families in the United States are to fulfill their promise. This means resources are needed for training and education of researchers and program developers; funds are needed to conduct new program development, research and evaluation activities; and it means we need more resources for basic research on applied problems.

We need to understand the causes, the course, and the outcome of successful and unsuccessful life courses for all of our citizens. We need to understand the routes to well-being in order to increase the chances that every person in the United States can fulfill his or her potential.

Let me say one last word that summarizes some things that my colleagues have said and that has occurred to the Task Force. First of all, these successful programs and many of the others that have been described by Dr. Hamburg and others are based on theory and research rather than guess work and testimony. They are typically based on developmental theory and research across the life span.

Second, they frequently recognize that populations are at risk for multiple, intertwined negative outcomes—drug abuse, school failure, involvement in the criminal justice system. These are not separate problems, they cannot be dealt with separately as categorical funding implies. We have to recognize the intertwined nature of these problems.

Third, we have to begin to set standards for evaluating these programs that are widely accepted. We have to accept the fact that rigorous research design, long-term follow-up in experimental trials, is going to be absolutely essential if we are not going to be wasting resources. Prevention programs don't become true prevention programs simply by being called "prevention programs." We need evidence for scientific effectiveness for each of them.

We also need to recognize that early promising programs have to be assessed on a larger scale demonstration basis to test the range of applicability and to understand strategies for dissemination of these programs in a wide variety of cultural contexts.

Finally we need long-term commitment. We have to shift from a crisis mentality to a long-term commitment both in the scientific and policy communities both through rigorous research on preventive trials and through dissemination of effective programs.

Thank you.

Chairman MILLER. Thank you.

[Prepared statement of Richard H. Price, Ph.D., and "Model Prevention Program Abstracts" follow:]

PREPARED STATEMENT OF RICHARD H. PRICE, PH.D., EXECUTIVE DIRECTOR, MICHIGAN PREVENTION RESEARCH CENTER, UNIVERSITY OF MICHIGAN, ANN ARBOR, MI

Background

For the last several years, the American Psychological Association has sponsored a Task Force on Promotion, Prevention and Intervention Alternatives. The mission of the Task Force has been to identify successful prevention programs where evidence of effectiveness was convincing. We hoped that the program models we identified could be disseminated more widely throughout the United States. I have served as Chair of that Task Force. Other members include psychologists Emory Cowen, Ray Lorion, Julia Ramos-McKay and Beverly Hitchins, Office of Professional Affairs, American Psychological Association. Early in the life of that Task Force, we contacted over 900 experts throughout the country who we believed were knowledgeable about prevention programs or had developed programs themselves. In response to our inquiries we received 300 replies describing an extremely wide range of prevention efforts, delivered in a range of family, school and community settings.

The Task Force set about examining these programs, searching for promising programs that had collected evidence of effectiveness and which were potentially replicable. From these 300 programs, we identified a much smaller set of 50 programs where we believed research evidence for their effectiveness might be available. After careful scrutiny of the research evidence offered for each of these 50 programs, we identified 14 programs which we believe can serve as models. It is important to note that these programs are targeted at populations across the lifespan from preschool ages through mature adulthood, and that they are delivered in a wide range of family, school, and community settings. It is also important to note that our search is probably not exhaustive. There are surely many more programs that we were not able to identify. The 14 programs are described briefly in the attached set of abstracts.

What Do Successful Programs Have in Common?

While these programs are quite diverse and are directed at a wide range of populations, I believe there are several elements that they share in common that can guide us in future prevention efforts.

1. The programs are targeted. These programs focus on groups for which there is a reasonably well-defined understanding of their risk status. Risk status is marked by such characteristics as age, income, minority group status, single parent household, marital status, or the anticipation of some life transition such as entry into high school or widowhood.

2. Successful programs are designed to alter the developmental course and life trajectory in a positive direction. Successful prevention programs usually do more than produce a short term palliative effect. Instead, they are successful in changing the life circumstances of the individual in ways that alter the developmental course in a positive direction.

While we do not have firm long-term evidence of the success of some of these programs, they are aimed at long term change, setting individuals on new developmental courses, opening opportunities, changing life circumstances, or providing new supports.

3. Successful programs either give people new skills to cope more effectively or provide support in the context of life transitions. Programs generate positive change in one of two ways. Programs are either aimed at (1) providing people with new skills to cope with the challenges and demands they face, or (2) by providing new supports during life transitions such as entry into school, a change in marital status, or widowhood. A number of these programs, in fact, use both of these strategies to alter the person's developmental course.

4. Successful programs provide new skills or support by strengthening the natural supports and resources from family, community, or school settings. These programs are successful only when they can be integrated with, and effectively strengthen, local community resources and strengths. Successful programs cannot be imposed from without. Instead, they are the product of local community strengths combined with well-developed and repeatable program elements that have demonstrated preventive effects. Thus, collaborative arrangements with a supportive school, community, or volunteer organization are almost always in evidence.

5. Successful programs have collected rigorous research evidence to demonstrate their success. While it may seem obvious to say so, our experience is that many promising programs have been developed without the

expertise or resources to evaluate their effectiveness. Rigorous research on prevention programs is expensive, time-consuming and absolutely essential if prevention programs for children, youth, and families in the United States are to fulfill their promise. This means (1) resources are needed for training and education of researchers and program developers, (2) funds are needed to conduct new program development, research, and evaluation activities, and it means we need (3) more resources for basic research on applied problems. We need to understand the causes, the course, and the outcomes of successful and unsuccessful life courses for all of our citizens. We need to understand the routes to well being in order to increase the chances that every person in the United States can fulfill their potential.

Model Prevention Program Abstracts

Task Force on Promotion, Prevention and
Intervention Alternatives

American Psychological Association

APA Task Force on Promotion, Prevention and Intervention Alternatives

Primary Author(s)	Target Group	Objectives	Major Intervention Methodologies	Outcomes
Bernard L. Bloom William F. Hodges University of Colorado, Boulder	Newly Separated Persons	To provide social support and facilitate competence building in socialization, child rearing and single parenting, career planning and employment, legal and financial issues, housing and homemaking	Six month program provided by a paraprofessional and subject matter experts in the form of individual and group consultation, upon demand, on topics identified in the program objectives.	Intervention group members were significantly higher in adjustment, had fewer separation related problems, and reported significantly greater separation related benefits than controls. Positive program effects still evident after four years.

Reference: Bloom, B.L., Hodges, W.F., Kern, M.B., & McFaddin, S.C. (1985, January). A preventive intervention program for the newly separated. American Journal of Orthopsychiatry, 55, 9-26.

10/9/86

Primary Author(s)	Target Group	Objectives	Major Intervention Methodologies	Outcomes
Gilbert Botvin American Health Foundation, NY	Junior High School Students	Provide students with skills to resist pressures to smoke, drink and use drugs, help develop self esteem, help to cope with social anxiety, and increase knowledge of immediate negative consequences of substance use.	Life skills training in a school based 12 unit curriculum delivered by classroom teachers or older peer leaders. Booster sessions are added in subsequent years.	Significant reduction in new smoking in program students based both on self report and saliva tests. Additional effects were observed on smoking, psychosocial and advertising knowledge, and on social anxiety and influencability.

Reference: Botvin, G.J., Baker, E., Renick, N.L., Filazzola, A.D., & Botvin, E.M. (1984). A cognitive-behavioral approach to substance abuse prevention. *Addictive Behaviors*, *9*, 137-147.

10/9/86

Primary Author(s)	Target Group	Objectives	Major Intervention Methodologies	Outcomes
William S. Davidson Michigan State University	Youth charged with person, property or status offenses and referred by court referee.	To provide an intervention for delinquent youths outside the criminal justice system which will reduce the likelihood of recidivism	Trained, selected, college student volunteers work one-on-one with youth for eighteen weeks, six to eight hours per week. Specific intervention conditions included behavioral contracting, relationship building, youth advocacy within the family.	Significantly lower levels of recidivism as measured by court petitions two and one half years after intervention. Number of police contacts were also lower for intervention conditions conducted outside the court system.

Reference: Davidson, W.S., Blakely, C.H., Redner, R., Mitchell, C.M., &Emshoff, J.G. (1985). Diversion of juvenile offenders: An experimental comparison. Ecological Psychology Program, Michigan State University, Lansing, MI.

10/9/86

Primary Author(s)	Target Group	Objectives	Major Intervention Methodologies	Outcomes
Robert Felner University of Illinois	Young, low income adolescents entering high school	Reducing predictable negative effects of the crisis of transition to high school	Increasing peer and teacher support, minimizing environmental flux and complexity	After one year the experimental group had higher grades and better school attendance. Experimental group has less negative self-concepts and perceptions of school environment than controls. At four year follow-up, experimental group has better grades, fewer absences and lower dropout rates.

Reference: Felner, R.D., Ginter, M. & Primavera. (1982). Primary prevention during school transitions: Social support and environmental structure. *American Journal of Community Psychology*, *10*, 277-290.

10/9/86

Primary Author(s)	Target Group	Objectives	Major Intervention Methodologies	Outcomes
Dale L. Johnson Dept. of Psychology, University of Houston, Tx	Low income Mexican-American families with a one year old child	To enhance school performance and to reduce the incidence of behavior problems in school age children	Mothers are visited 25 times/year by paraprofessionals in year 1 and given information on baby care, creating a stimulating home environment, emotional development and coping with stress. Families attend many weekend sessions and mothers participate in English classes. In year 2, children participate in nursery school while mothers participate in child management classes at Center.	At five to eight years post program, control group children show more agressive, acting-out behaviors and are more hostile and less considerate than program children.

Reference: Johnson, D.L., & Walker, T. (In press). The primary prevention of behavior problems in Mexican-American children. American Journal of Community Psychology. (Houston Parent-Child Development Center)

10/9/86

Primary Author(s)	Target Group	Objectives	Major Intervention Methodologies	Outcomes
Nathan Maccoby Dept. of Communication, Stanford University, Stanford Heart Disease Prevention Program	Entire communities and, in particular, residents who are overweight, smoke, practice poor nutrition, and do not exercise	To stimulate and maintain changes in life style that will result in a community wide reduction in risk of cardiovascular diseases	A community education program aimed at smoking, nutrition, exercise, hypertension and obesity. Mass media, community organization and social marketing of health promotion programs	Increase in knowledge and modification of behavioral and physiological indicators of risk, particularly when mass media campaigns were supplemented with face to face instruction.

Reference: Meyer, A.J., Nash, J.D., McAlister, A.L., Maccoby, N. & Farquhar, J. (1980). Skills training in a cardiovascular health education campaign. Journal of Consulting and Clinical Psychology, 48, 129-142

10/9/86

Primary Author(s)	Target Group	Objectives	Major Intervention Methodologies	Outcomes
David Olds University of Rochester Medical School, Rochester, NY	Socially disadvantaged primaparas and their children (women who are either teenagers, unmarried, or poor bearing their first child)	Improve prenatal health habits and behaviors, informal social support, use of community services, reduce low birthweight, improve infant health and development, improve maternal school and occupational achievement, reduce repeat pregnancy and reduce welfare dependence, reduce child abuse and neglect	Pre- and post-natal nurse home visitation, transportation for health care, sensory and developmental screening.	Nurse visited women during pregnancy made better use of community services, experienced greater social support, improved their diets, and reduced the number of cigarettes smoked: improovements in birthweight and length of gestation were present for young adolescents and smokers. After delivery, nurse-visited mothers at highest social risk (the poor, unmarried teenagers) had fewer verified cases of abuse and neglect during first 2 years postpartum, restricted and punished children less, provided more appropriate play materials, were seen in emergency room fewer times, had fewer subsequent pregnancies. Older poor unmarried women had fewer subsequent pregnancies and were employed more months than older poor, unmarried women assigned to the control group.

References: Olds, D.L., Henderson, C.R., Tatelbaum, R., & Chamberlin, R. (1986). Improving the delivery of prenatal care and outcomes of pregnancy: A randomized trial of nurse home visitation. *Pediatrics*, *77*, 16-28.

Olds, D.L., Henderson, C.R., & Tatelbaum, R. (1986). Preventing child abuse and neglect: A randomized trial of nurse home visitation. *Pediatrics*, *78*, 65-78.

Olds, D.L., Lombardi, J.L., & Birmingham, M.T. (1986, August). *Final report: Prenatal/early infancy project: A follow-up evaluation at the fourth year of life.* Final report to the Ford Foundation (Grant No. 840-0545).

10/9/86

Primary Author(s)	Target Group	Objectives	Major Intervention Methodologies	Outcomes
Donald E. Pierson Deborah K. Walker Terrence Tivran Brookline Early Education Project	Families of preschool children	To reduce learning difficulties in preschool children and to develop effective parent-school communication links	Parent education and support, diagnostic monitoring, periodic health and developmental exams for children from 6 months and, beginning at age 2 years, weekly playgroups followed at 3 and 4 by a daily morning pre-kindergarten program.	Structured observation of classroom behaviors showed program children to have less learning difficulty and fewer reading problems in second grade than comparison children. Parents of program children had more relevant interests with their child's second grade teacher as well. Cost effectiveness analyses showed that more intensive versions of the program are more effective for children whose parents are not highly educated.

Reference: Pierson, D.E., Bronson, M.B., Dromey, E., Swartz, J.P, Tivnan, T., & Walker, D.K. (1983). The impact off early education: Measured by classroom observations and teacher ratings of children in kindergarten. Evaluation Review, 7, 191-216.

Pierson, D.E., Tivran, T., & Walker, D.K. (1984). A school-based program from infancy to kindergarten for children and their parents. Personnel and Guidance Journal, 62(8), 448-455.

10/24/86

Primary Author(s)	Target Group	Objectives	Major Intervention Methodologies	Outcomes
Craig T. Ramey Frank Porter Graham Child Development Center, University of North Carolina	Disadvantaged rural black preschool children at risk for mild mental retardation	To provide a learning environment to develop children's communication, language, motor, and social skills	Child centered prevention program delivered in a daycare setting from infancy to age 5, emphasizes language, cognitive perceptual motor and social development.	Beginning at age 18 mos. and intervals thereafter to 54 months, program children scored significantly higher than controls on a range of mental ability tests, with experimentals exceeding national averages while controls declined.

Reference: Ramey, C.T., & Campbell, F.A. (1984). Preventive education for high risk children: Cognitive consequences of the Carolina Abecedarian Project. American Journal of Mental Deficiency, 88, 515-523.

10/9/86

Primary Author(s)	Target Group	Objectives	Major Intervention Methodologies	Outcomes
Mary Jane Rotheram Columbia University	Fourth and fifth grade children	To improve social skills assertiveness and interpersonal competence in 4th and 5th grade children.	Group based social skills and assertiveness training 2 hours per week for 12 weeks focused on training nonverbal behavioral skills, interpersonal problem solving and emotional self control in role play context.	Teacher rated conduct, higher achievement and higher popularity observed in assertiveness/skills group. Grade point averages were higher for experimental group 1 year past intervention.

Reference: Rotheram, M.J., Armstrong, M., & Boorsem, C. (1982). Assertiveness training in fourth and fifth grade children. *American Journal of Psychology*, *10*, 567-582.

10/9/86

Primary Author(s)	Target Group	Objectives	Major Intervention Methodologies	Outcomes
Phyllis Silverman Institute of Health Professions, Massachusetts General Hospital, Boston	Recently widowed persons	To provide social support, mutual help to newly widowed women to reduce psychological distress	Program - widows contacted newly bereaved women, provided one-to-one support, located community resources, made supportive telephone calls, and led small group meetings.	Experimental group members have improved mood, lower anxiety, made more friends, and began more activities. Overall experimental group women progress more rapidly in the course of adaptation from reduction of internal distress to resocialization.

Reference: Silverman, P. (1986). *Widow to widow*. NY: Springer Publications.

Silverman, P. (1980). *Mutual help groups: Organization and development*. Beverly Hills, CA: Sage Publications.

Vachon, M.L.S., Lyall, W.A.L., Rogers, R.N., Freedman-Letofsky, K., & Freeman, S.J.J. (1980). A controlled study of self help intervention for widows. *American Journal of Psychiatry*, *137*, 1380-1384.

10/9/86

Primary Author(s)	Target Group	Objectives	Major Intervention Methodologies	Outcomes
George Spivack and Myrna Shure	4-6 year old urban pre-school and kindergarten/first grade children	To teach children interpersonal problem solving skills in order to promote positive social behaviors and decrease/prevent high risk negative behaviors.	Formal 12 week training programs and associate procedures for use throughout the day - one is for preschool and other kindergarten/first grade - both enhance ability of each child to generate alternative solutions to peer and adult problems and anticipate potential consequences of interpersonal acts.	Experimentals acquired higher levels of problem solving skills than controls, enhanced positive social behavior, and decreased impulsive and inhibited behaviors - effects endured over time - the incidence of new high risk cases was diminished - linkage between cognitive and adjustive gains was shown.

Reference: Shure, M.B., & Spivack, G. (1982). Interpersonal problem-solving in young children: A cognitive approach to prevention. American Journal of Community Psychology, 10, 341-356.

10/9/86

Primary Author(s)	Target Group*	Objectives	Major Intervention Methodologies	Outcomes
Ciporah S. Tadmor Rambam Medical Center and the Neaman Institute for Advanced Studies in Science and Technology, Technion, Haifa, Israel	Pregnant women undergoing Caesarean birth	Mobilize natural and organized supports, provide information and sharing the decision making process, as well as, develop task oriented activity to enhance emotional cognitive and behavioral control and prevent emotional dysfunction	Anticipatory guidance session familiarizes couple with medical setting and personnel. Provide detailed information on birth process, anesthesia, anticipated reactions, pain, duration. Caesarian birth support group provides support, guidance and help during hospital stay. Discharge planning occurs before release.	Experimental mothers released from hospital sooner than controls, initiate independent care of the baby sooner, continue nursing longer. After day 1, experimental mothers request less medication than controls and experimental fathers show closer attachment to babies than control fathers. Experimental mothers' psychological recovery is more rapid.

Reference: Tadmor, C.S., & Brandes, J.M. (1984). The perceived personal control crisis intervention model in the prevention of emotional dysfunction for a high risk population of Caesarian birth. *Journal of Primary Prevention*, *4*, 240-251.

Tadmor, C.S., Brandes, J.M., & Hofman, J.E. (1985). Preventive intervention for a Caesarean birth population. *Journal of Preventive Psychiatry*, *3*(3).

---

*The preventive model has been also implemented to elective pediatric surgery patients and their parents.

10/9/86

Primary Author(s)	Target Group	Objectives	Major Intervention Methodologies	Outcomes
David Weikart Lawrence Schweinhart High Scope Educational Research Foundation Ypsilanti, MI	Black children ages 3 - 4 from families of low socioeconomic status who were at risk of failing in school	To implement a high quality preschool curriculum, involve parents, with coordinated staff, administration, and parent involvement for preschool children.	High quality, early childhood education for two years, 2-1/2 hours per school day for 7-1/2 months per year. Children participated in cognitively oriented curriculum. Weekly home visits were conducted.	Significant cognitive gains, improved scholastic placement and achievement, during school years for experimentals, and, decreases in crime and delinquency, use of welfare assistance. Experimentals also have better high school graduation rates, and rates and more frequent post-secondary enrollments, and higher employment rates than controls. Benefit-cost analyses show benefits to exceed costs seven fold. Findings persist through age 19.

Reference: Berrueta-Clement, J.R., Schweinhart, L.J., Barnett, W.S., Epstein, A.S., & Weikart, D.P. (1984). *Changed lives: The effects of the Perry Preschool Program on youths through age 19.* Monograph on the High Scope Educational Research Foundation, No. 8.

Chairman MILLER. Congresswoman Boggs.

Mrs. BOGGS. Thank you, Mr. Chairman. I ask the Chairman's permission and the indulgence of my colleagues to tell you how much I appreciate what you do day in and day out, of course, but also for bringing your expert knowledge, your concern and your caring to this committee and to tell you how much I had looked forward to being able to enjoy all the testimony and the give and take afterwards.

But I have been pressed into service to chair the HUD and Independent Agencies Appropriations Subcommittee and I regret very much that I will be denied the privilege of staying with you for the rest of the hearing.

Thank you so much and thank you, Mr. Chairman for the opportunity of saying so.

Chairman MILLER. Thank you.

It was the intent of this Committee—well, I should say it was my intent, when we first had discussions about this committee with the Speaker and others that all too often members of Congress and policy makers generally were dealing in failures. We found that most of their time was looking for lost Social Security checks or Veterans Benefits or trying to get somebody in the Army and out of the Navy or vice versa. And I suspected when we went home and talked to our spouses and our friends that sometimes we were a little frustrated that we couldn't participate in more successes. One of the themes of the committee has been to look at the opportunities for success, based upon the premise that our children, at whatever age, are certainly capable of far more than we ask of them in terms of their potential to achieve. I think that this hearing continues on that theme, because in an hour and a half here, you have taken most of the politicians' nightmares and basically suggested that they can be dealt with should we desire to do that; that, in fact, the problems of teenage pregnancy or drug abuse or substance abuse generally, early childhood education or enhancing decision-making capabilities—that should we desire to do so, there are a number of communities and programs out there that are in fact mitigating the harm that has been done by those negative choices. They are also reducing the harmful impact of those choices or those events on young people and on their families, which goes to probably a hearing we'll have to have some other time on national will and patience in dealing with some of these problems. But if in fact what you're seeing is accurate, and I believe it is given your collective backgrounds and the time you've spent looking at these problems and at programs for prevention and successful intervention, then that's probably a question that we're going to have to go after with some commitment. For I think you're right, Dr. Price, that to continue to stagger from issue to issue on a crisis basis, having just staggered from drugs to AIDS, the real question is whether or not we are prepared to have some long-term vision regarding each and every one of these problems.

And finally, the other striking fact is that in most of the programs that you have surveyed or that you're promoting or that you've looked at, they seem to take a step back from the specific crises or the urgency. What you're talking about here, whether it's in Head Start or drug prevention or sex education or AIDS is the notion of allowing people to understand how you go through the decision making process and empowering people to understand it's not just whether you make the decision to smoke marijuana today or tomorrow; it's a whole question of harmful decisions. It seems to me—I don't want to put words in your mouth—that you're suggesting that people have to come to grips with the question not just of child abuse in and of itself but also of parenting. We have to step back a little bit and look at this in terms of some skills that need to be acquired. If those skills are acquired they may work just as well for tobacco as for cocaine and may work just as well in terms of parenting as they will later in adolescence. I think that's important for us to note.

Let me just ask a couple of questions; I want to make sure that my colleagues have time to do the same.

Dr. Miller, relating to your testimony, if we get deeply involved in these issues of prenatal care, teenage pregnancy, child bearing, and all of the issues that surround the decision-making process and the outcome and the events, some say that all of this is really going to lead to higher sexual activity among adolescents or among people that we really don't want to engage in sexual activity, that in fact this really isn't a chicken or an egg argument, and that this discussion or promotion of these services is what leads to this activity. Can you expand on that in terms of your presentation here? What's going on in other countries that are more deeply involved in this issue than we are?

Dr. MILLER. There are two points that I would like to make in relation to that, both in the context of emphasizing that Western Europe seems to have much less of a problem of teenage pregnancies than we have and they experienced rather dramatic declines in teenage pregnancy and childbearing during the 1970's.

There is absolutely no evidence that adolescents in Western Europe have a later onset of sexual activity than we have in this country. All of the evidence is that sexual activity is about the same. But the compelling difference is, in Western Europe there are well-organized programs of sex education, ordinarily school-based, and more widespread access to contraception.

The second point that I wanted to make is that it's true, as other testimony brought out, that teenage childbearing is associated with higher rates of low birthweight and with higher infant mortality and with subsequent morbidity, and a whole host of problems, but not if pregnant teenagers receive comprehensive adequate care associated with their pregnancy.

The impact of maternal age on pregnancy outcome is very small if those people have received adequate care. The truth is, we don't provide them with adequate care.

Chairman MILLER. Thank you. Dr. Kenny, when I listened to you describe Community of Caring as a program, obviously it appears to be rather comprehensive in terms not only of the goals of the program, but also of, as you have suggested in your audits of the program, the outcomes that you have determined in terms of reduced drug and alcohol abuse, reduced child abuse and greater participation in terms of employment and less repeat pregnancies. What's the burden that's placed on a social agency or a school that wants to engage in this kind of program?

Are we talking about an entire restructuring or is this compatible in effect to—I leaned over to Congressman Weiss and I said I thought that's what the schools were supposed to be doing, but I'm sure that's not a universally shared view.

Mr. **Kenny**. I think that the biggest burden that's incurred is to look at what we are actually doing in schools and what we should be doing and then in making some small shifts, of actually saying that we have a responsibility to the students and to the community at large to talk about relationships. And we don't really provide, we know that we can find kids in schools, we can find adolescents in schools and pre-adolescents in schools, we teach them in a way that is similar in many schools across the country, similar to an assembly line; we put them into a room, we ring a bell, we move them to the next room, we ring a bell, we move them to the next room and at the end of the day they're a car, or at the end of the year, they're a car.

What we haven't done is really worked very hard at talking about and forming relationships with children in schools.

We haven't given them the opportunity very often to make decisions. We haven't allowed them to make decisions about where the Coke machines will be, where the bike racks will be, very small decisions but one that they could all participate in without changing the entire structure of the educational system in this country.

We don't do that. We tell them what to do from the first period right on through and then at about 13 or 14 years old when we haven't talked about relationships. I'm here to teach English and then you're going over to your math teacher and then you're going to have someone else. Then at 13 or 14 years old we say to them, well now you have to make some decisions and it's about relationships, good luck. We don't really give them any kind of backup. It's one of the most important decisions they have to make and, as Dr. Miller said, at a very important time in their life, whether or not they'll partake in sexual activity.

Now, they don't have enough guidance, we, as an educational system, haven't given them the opportunity to make any decisions. Now we're giving them a very important decision. We haven't really given them the opportunity to talk about what it means to be in any kind of a positive, nonsexual fulfilling relationship. So the first relationship that they're in, the pressure is on to make a very important decision and they have a background in neither one of those areas.

So I think, to respond to your question, the shift is not great, there's not a tremendous financial burden on schools or agencies. It's an orientation to allow people to start to see that we have to start talking about relationships and decision-making in these agencies.

And I just wanted to make one other comment. I think there is a structural change that would make a lot of this much easier. And that has to do with the size of American high schools.

There is a body of research on the impact of size of high schools as an influence on how easy it is to establish relationships. In a small high school, it's easier for the English teacher to know all the students and the English teacher is also much more likely to know the students as their coach and maybe the advisor to a club.

The size of American high schools went from roughly 500 students in the early 1950's to an average of more than 1500 students over a period of 15 or 20 years. And I think large high schools make it much more difficult to have these kind of relationships. And that's a change that we've seen that we haven't mentioned today, but is a structural change that has a real impact on the context in which these kind of prevention programs could operate.

Chairman MILLER. Mr. Hastert.

Mr. HASTERT. Thank you. I think it has certainly been an interesting morning, listening to testimony.

I spent 16 years in the school system, and you talk about some of the things I've been interested in. However, I was the Chairman of the Social Science Department and you didn't talk about these things to people in the math department, science department and other departments because it infringed upon their time and their academic right to teach what they want to teach.

One of the things that you talk about, and I'm interested in Dr. Kenny's response, you're talking about a holistic approach to education. And what I'm wondering, in your scheme of things, how do you teach the teachers?

Because what you're saying is that you're dealing with a generation of people or several generations of people that haven't done this before. And I'm not trying to be negative, but I'm just trying to be realistic that they are very protective of their own areas of academic endeavor, in moving from a type of education that is usually quantitative. You know, you can't get teachers to put down A, B and C's anymore because they want to put 98's and 86's and 32's down because that's quantitative and it's easier to figure and you don't have to make a subjective decision.

You're talking about asking people not just in an educational realm, which in the area of public education people would go to courts and they were being very protective of what you teach children other than quantitative things. How do you do that? What's your schematic.

Mr. KENNY. We got into a lot of those problems earlier, especially in high schools. And talking about large, comprehensive high schools that were developed, the idea at least was developed in the late 50's. One of the things that we found along the way was to work in junior high schools, because junior high schools really address two of those questions.

The first question, junior high schools are usually smaller. And I think there are many who suggest that junior high schools were an awful invention. That you put kids who are having the most difficult time in their lives into a building together and say good luck. Our program kind of addresses that by saying all right, we've got junior high schools. They're small. We also have a greater percentage of parent involvement than you do in a high school. You also don't have the academic preciousness that you find in the high school—people that are teaching math are going to stick with math. Junior high school teachers we found in general believe that part of the process of a junior high is to get kids socialized to go to high school.

And this is a comprehensive program and a large part of it could be seen as a socialization process. How do you get a 12 or 13 year old to be a little bit more socialized in the context of a larger high school, larger community.

Also, we've got a very pressing problem in this country of teenage pregnancy and now of sexually transmitted diseases. When you walk in and say we have this problem, what are we going to do, people don't say no, we don't have a problem. The problem is out there and it's very clear. So, we step back from it. Initially if you say this is the problem, this is a possible solution, people pay attention and they start to look at different ways of doing it.

As you mentioned, you were in a classroom, if you talk to classroom teachers in a very practical hands-on way, and they've dealt with kids day to day, year to year, and you start to talk about relationships and decision making, very few teachers say oh, that doesn't make any sense. They do like to know how can I go about doing that. And we are in the process of developing a training program to help teachers to train a small group of teachers in each school who then turn around and train other teachers in the school.

But teachers know a lot of this stuff intuitively. They've worked with kids. It's their training, it's their professional background. We haven't allowed in some way teachers to do their job. We've forced them to teach the curriculum and only the curriculum.

Mr. HASTERT. So your schematic then, your focus, is to train teachers to be——

Mr. KENNY. That's right. And an important step is to bring parents in. Because when you're talking about relationships and sexual activity, the parents have to be there. Otherwise there are all kinds of problems. It needs to be reinforced at home and it needs to be a community effort.

We've also found that the most important thing when you're talking about relationships and sexual activity, and you're talking to children, the parents are not as concerned about what you're teaching as who is teaching it. And if they like Mrs. Smith or Mr. Jones and Mr. Jones is going to be there, well, that's okay. And that's why it's very important to get the personnel involved because the parents will come along and support it. One of the biggest complaints we have in schools is there's not enough parent involvement. This is the way you get parents involved. They're talking to my kids about this stuff, they're inviting me in to get training, to get involved. So it is very comprehensive.

Dr. HAMBURG. The schools systems that I've been involved with over the years sometimes are very protective about teaching values. These are things that you talk about and it surprises me. I guess I'm showing that I'm a little bit archaic in some of my thoughts. But it seems to me that a lot of the things that we ask the schools to do are things that have been given up by the church and the family and the community in the first place.

And it seems to me, sure, I taught in a school that was 500. It was nice, it was a good situation. But I've also been in schools that are 5,000. And that's where the problems are.

Mr. KENNY. That's right. 5,000 is very, very difficult. And I can't say that we can tackle that one. What we're really zeroing in on at this point are the junior highs, because developmentally it makes the most sense to deal with kids that are in junior high level than it is to deal with seniors in high school who are mostly gone in a lot of ways and in a school of 5,000 kids.

Dr. **Hamburg**. That's probably the age group that they're most, that they start to pattern, too.

Mr. **Kenny**. That's right. And they're very, very curious.

Chairman **Miller**. Dr. Rowland?

Dr. **Rowland**. Thank you very much, Mr. Chairman. And may I express my appreciation to all of you for coming this morning and sharing this insight with us.

I was listening, Dr. Miller, to what you were saying about the amount that we spend on health care as a percentage of the gross national product. Compared to the rest of the European countries, we spend more but we have poorer results in many areas.

Looking at Switzerland particularly, as I understand it, most of the responsibility for personal care in Switzerland rests with the cantons or the states themselves. Broad issues are addressed through the central government or the federal government.

Their infant mortality rate is 7.6 per thousand, and ours is higher than 10. Why is it that we spend more and have poorer results? I guess we could go to other areas. But we're talking about infants and adolescents here. We spend more but we get poorer results. It seems that the bigger we get, the worse we get. And we've certainly gotten bigger over the past 20 years when the federal government became increasingly involved in trying to provide health care for our country. We do operate on a crisis basis. I've seen it in the five years that I've been here, members of Congress running around sticking their finger in the dike and holes break out elsewhere while trying to deal with the health care problems that we have in the country. We're just not addressing it. The thing now is catastrophic health insurance. Everybody wants to introduce catastrophic health insurance. In my opinion, almost all of the legislation that has been introduced is not going to address the problem. It's going to make the problem worse in a lot of instances.

Seems to me that we need to step back and look at what's taking place in our country and in our health care delivery system and say we've got to change directions; we've got to do something different from what we have been doing.

That's my feeling about it. That's what I think. And I think we're so busy looking at trees, we fail to see the forest.

I guess I got on my stump a little bit there about that. But I was interested in what you were saying. Why is it that they have much better care and it costs less?

Dr. **Miller**. Two points I'd like to make. One is specifically in regard to the situation in Switzerland. Switzerland does represent a highly decentralized system in which the cantons are given great responsibility for services.

But, in the instance of maternity care and peri-natal care, that is always within the context of centrally determined standards of care. And those centrally determined standards of care are then enforced by central government. A great deal of freedom is allowed the cantons to fulfill those standards and implement them, even to the extent that the central government subsidizes the private insurance companies in order to make sure that they maintain adequate care that meets the national standards.

In response to your question about why does it cost us so much more, I am reminded of an analysis back in the early 1970's in this country when we were in the midst of enormous debate about different systems of national health insurance, whether we would go with this plan or that plan.

And the analysis that appealed to me most at that time was one that attempted to compare the costs of those various systems. And it's true that some did appear to cost more than others.

But the final line of that analysis is that the most expensive thing that the country could possibly do is to do nothing at all. And we did nothing at all, and are left with a bill paying device of subsidizing whatever it is that a burgeoning industry seems to want to sell in the form of medical care.

I think that the only solution is to commit ourselves to systems of more universal participation and guarantees in basic, essential preventive health services. And I think initially that's going to require some financial outlays and some expenditures that are going to be unattractive. But I think that has to be done in order for the long term savings that surely will result.

Dr. ROWLAND. Well, listening to the comment about the section rate percentage, I recall that when I had obstetrics in medical school that—I don't know if any of you ever knew Dr. Torpin or not, but he was the guy in charge of the Department of Obstetrics, and said your section rate should never be over 4 percent. Now it's 23 percent.

Why is it the section rate has gone up like this? Is it because doctors get paid more for doing sections, or is it for the convenience of the patient and the doctor? What's going on? There is a high infant mortality rate associated with sections, too.

Dr. MILLER. I think any answer to that important question is going to involve a degree of speculation that I am reluctant to engage in.

I think you have identified a number of plausible factors that have been incriminated. It is more convenient. It is more financially rewarding.

Obstetricians claim that it's to protect themselves against malpractice. The extent to which that may be true I don't think has been seriously studied and investigated.

But there are alternatives to that and we need to develop the alternatives. But it's consistent with so much of the pattern of our care that we are willing to pay for whatever is the most elaborate and expensive technology anybody wants to promote.

Dr. ROWLAND. We're not walking down the primrose path, are we?

Dr. MILLER. I don't think it's irreversible.

Dr. ROWLAND. I could talk for hours about this, Mr. Chairman. Thank you very much. And I thank all of you for being here.

Chairman MILLER. Thank you. Congressman Wolf?

Mr. WOLF. Thank you, Mr. Chairman. I apologize for coming in late. I have not read all the testimony but I will. Just a few questions. What are your individual feelings on school-based health clinics?

Chairman MILLER. Dr. Miller?

Dr. Miller. I want to report only some recent evidence that may be well known to you from other sources about school-based health clinics, acknowledging how sensitive and controversial that subject is. But what I thought was superb, carefully controlled research done by a Dr. Lauri Zabin on school-based health clinics. They really weren't school-based, they were across the street. But they provided easy access, and convenient counseling.

Her findings were that beginning at age 12 through all of the school years, the schools that had those clinics had on average a 13-month delay at every age group in the first onset of sexual intercourse.

It seems to me that it's compelling testimony to the effect that if you give information, some options, resources, help with decision making, teenagers make wise decisions. In this instance their decisions were to delay sexual activity. School-based health clinics did not promote early onset of such activity.

Mr. Wolf. Is there anybody on the other side of this issue? Does the whole panel support school-based health clinics?

Mr. Kenny. I think it's important to note that a school-based clinic is important but it's not enough, if we just do that, and we don't have a more comprehensive program to get kids to talk about a lot of the feelings, about the relationships and sexual activities and decision making, that that is not quite enough. My only vote against it would be if we would stop there, and I'd like us not to stop there.

Dr. Hamburg. I'd just like to add to it. I think that it is a very important set of innovations which ought to be researched very carefully. I think the research that exists is very much compatible with what Dr. Miller said.

I want to speak to the controversy. The controversy seems to be largely about whether or not you're going to distribute contraceptives. And while that's a part of it, there is a great deal more to be considered in assessing the value school-related health facilities. These are not contraceptive clinics, if we are serious. They're not family planning clinics, if we are serious. They are health facilities. They are comprehensive health facilities. That is the crucial need.

It ought not to be a device for diffusing contraceptives or any other particular technology or particular point of view. It ought to be a serious entry of health professionals into a cooperative relationship with the educational system. There is a great need for such cooperation. I don't care too much whether it's in the school or near the school. What's important is easy access where kids can reach out for help on a variety of matters involving smoking and drugs and alcohol and ways of coping with stress. They need help with the fateful decisions that they are in the process of making. Whether we're willing to face it or not, they're making decisions that will affect their whole lives and affect their families. From the viewpoint of my own career in medicine, I believe that the medical profession has a responsibility to do more than we have done in cooperating with the schools to make it a serious enterprise to reach adolescents. And I think we need a lot more innovation and research to determine how best to do that, but we have to try to do it. That's my judgment.

Chairman **Miller**. On that point, I just wondered how you thought this plays into the issue that was just brought up here earlier on the large school, small school. Is there any—I'm sure there's no research on this. But are there any notions about whether these clinics would take on more importance or less importance in a large school, I mean for the kid who is trying to figure this all out, to have a place? The ones I've looked at seem to have a high level of student involvement so there's also some comfort in making the decision to go to the health clinic. Is there any notion what role that would play in the large schools, or whether that would be helpful or not?

Mr. **Kenny**. It's just a notion.

Chairman **Miller**. That's all I'm asking for. I wouldn't dare ask——

Mr. **Kenny**. If you have a clinic in a large school, I think that if the school is 5,000 students, I think the chance is, one of the things we find is that alienated youth, adolescents that are alienated, don't use systems. If they're alienated from the school, why would they use the school clinic? We can't beg off by saying that we've got this clinic here. We've got to get the school to be more humane, and then they can use the services in the school, they could use other services besides medical. But just to have it there without having a supportive context that someone can say to them why don't you go over to the clinic and get some help in whatever it happens to be, my feeling is that the alienated youth wouldn't go because that would be again seen as part of the establishment.

Mr. **Wolf**. Let me just ask one more question, to follow up.

What troubles me deeply about school-based clinics is that when a parent sends his or her child to a school—are all of you fathers? How many of you are fathers? You all understand this—and your message to your children is that it's wrong to have sex before marriage, and then they enter the school-based clinic, and this is what I want to ask you. Perhaps we're talking about school-based clinics. You seem to be saying that in a school-based clinic the issue of contraceptives is really not important. You're talking about the overall health of the high school student. Does it not trouble you that the child may be confused when they enter this school-based clinic when mom and dad and the priest and the rabbi and minister are saying no to sex before marriage—because there's a terrible epidemic of AIDS potentially hitting this Nation, because there's other terrible epidemics, because of moral reasons, it ought not to be something that you should do. But then they walk into the school-based clinic and they see the nurse who is an employee of the local governmental agency dispensing birth control pills or contraceptives. Does that not trouble you, with regard to how the young child interprets that?

Mr. **Kenny**. It troubles me in the sense that there is no discussion around what all of this involves. It's a part of the educational process that these methods are available and that there are different options. But again, to give them those decisions without a context—I mean, it's a very important decision they're about to make. It goes against maybe a lot of the things that they've heard in church and in their families and community groups. But not to allow, to allow in any way, to promote discussion to happen so that those decisions can be made in some kind of context. That does bother me very much that we're saying there's a cabinet over there and you can go and get what you need and you don't need to talk about it with anyone or amongst your peers or your teachers or counselors. That bothers me.

Mr. WOLF. Let me just follow up with Dr. Hamburg, were you saying, and I don't want to put words in your mouth, that a school based clinic would be viable if it did not have contraceptives or birth control devices?

Dr. HAMBURG. Oh, yes, I would say it would be viable without. There are so many different elements that are required that to say that absolutely every element has to be present in every situation seems to me unrealistic. On the other hand, I would much prefer that human sexuality be a part, indeed a significant part of it along with everything else. I would prefer for it to be really comprehensive.

Now, the issue you raise, I was focusing particularly on early adolescence, the 10 to 15 age period which I think is so exceedingly fraught with danger.

In my experience, the vast majority of health professionals would prefer to see children of that age not sexually active. There happens to be a coincidence of a number of medical and public health and social and psychological and ethical considerations that come into play to make a strong preference in my view for non-sexual activity in early adolescence.

Nevertheless, health professionals and indeed the society at large have to deal with the fact, the enduring fact, that lots of young people will be sexually active. It becomes more important at the senior high level in the sense of being more prevalent at the senior high level. Not more important. That was wrong. More prevalent at the senior high level. It's absolutely crucial to make some kind of sensible intervention earlier. And I think we have as a society to consider that very carefully, look at what the evidence is, what are the different ethical preferences.

I share your concern about it. But I don't think the answer to it is to hold back on health activities in connection with education. It's a very basic part of human development and I think we have to be as constructive and thoughtful about that as we would be about anything else.

Mr. WOLF. Okay. I'll just end on this comment. I have 15 federal retired employees in my office at 11:30 that I have to go see.

Chairman MILLER. That's health care. Yours.

Mr. WOLF. What troubles me is that if I, as a parent, am counseling my kids one way, to abstain, and then I send them into this school and the nurse who is dressed in the uniform of the county or the city is dispensing birth control pills or contraceptives, that's like saying to a child no, you ought not do this, you ought to abstain, because there's a ravaging disease called AIDS or there's moral reasons, and then they see a governmental authority figure who is saying no, you ought not do it, but if you do do it, here's what you ought to use. That's tough enough when you're 31 or 41, when you're 12, 13, 14, 15—I'm a father of five children. That's pretty tough. And that's what troubles me very deeply.

My best comment is that it appears, and this may be an overstatement on my part, the proposal for school-based clinics, that I have seen, tends to be almost racist. They tend to be put more in black neighborhoods than any other place.

Do you think that that's accurate? Does anyone find that been true to date?

Dr. **Miller**. There are many exceptions to that. I don't know the extent that it's true. But there are exceptions.

Mr. **Wolf**. You were shaking your head.

Dr. **Garbarino**. The medical area is not my expertise.

Mr. **Wolf**. Go ahead.

Dr. **Miller**. Well, your formulation troubles me a little. I'm a parent, too. And I have had no reluctance in identifying the kinds of behavior that I thought would be in the best interests of my children. But I had never thought that when they left the hearing distance of my voice, that they suddenly were cut off from my influence even though the pressures from peers and entertainment and all kinds of media were enormous. What was important is not that I made a decision about what kind of behavior children should engage in, but that they had information and conviction to make a decision about that.

And I think that when you portray personnel in a school-based clinic as pushing a certain kind of libertine sexuality——

Mr. **Wolf**. I didn't say that.

Dr. **Miller** [continuing]. That's not true.

Mr. **Wolf**. I didn't say that. I did not take issue with you. I didn't say that. I didn't say they were pushing. I said that it's available.

Dr. **Miller**. But also what is available is a lot of counseling to help young people reinforce whatever decision they happen to make, including decisions for abstinence. And in the clinic that I described, all of the folders were stamped, if the children desired it, that the contents and discussions were to be kept confidential from parents. But after one year, 80 percent of those stamps were removed at the children's request. Under the urging of counselors, children were in close communication with parents about what was happening.

Mr. **Wolf**. Then you're saying you think that parents should be notified?

Dr. **Miller**. I don't think it's necessary to notify parents. I think the students——

Mr. **Wolf**. If the counselor is counseling with a 12-year-old child the parent ought not to know or ought to know?

Dr. **Miller**. I think that that's up to the counselor and the child and not necessarily that they ought to be compelled to advise the parent.

Mr. **Wolf**. Well, I totally, completely, unalterably disagree with you. 12 years old is far from being an individual able to decide such a morally weighty matter—that decision-making should be transferred from the parent over to a governmental authority.

Anyway, George, let me just thank you very much. I thank the panel and I look forward to reading all of your testimony.

Chairman **Miller**. Thank you. Congressman Sawyer?

Mr. **Sawyer**. Thank you, Mr. Chairman. Let me step backward a little bit and touch on something that I think goes right at what Dr. Rowan was talking about, Mr. Hastert and in fact, Mr. Wolf.

If we just look at a couple of arenas where we have had a significant impact, if we just look at injury prevention and immunization, it seems to me that we run into the same kinds of things. We have leaped to a presumption here that I'm not sure that we can sustain throughout this country. That is that the school becomes the most effective portal through which all of this huge population must pass at one time or another and that that becomes the place where these things can be done best. And perhaps that's true.

But it's been my experience that when it comes down not even to questions as volatile as the one we were just discussing, the questions of funding, that questions as basic as immunization are enormously difficult questions to deal with.

And the comment that we heard, I guess it was Mr. Hastert, earlier, the question about whether or not this was really the kind of thing that schools ought to be doing and whether or not it was an appropriate arena for a learning endeavor, really goes back to whether or not we have the opportunity to do this.

My judgment is that the business of immunization becomes a learning process not only for the child coming into the school, but the parental community who, even by age 12 or 15 of their child in many cases have not become comfortable with the school as an appropriate setting for many of these kinds of undertakings.

How—and this goes back to my question—how do we educate the child, not even how do we educate the teacher, but how do we accommodate an entire population of parents and citizen decision-makers to the enormous logistical problems that we face in overcoming the most fundamental kinds of questions, like immunization, injury prevention, smoking, all those kinds of things that are most directly treatable, yet to which we find enormous resistance, sometimes just because of the setting we're in?

It comes down to the question of the education of the parents, the acclimation of the parent to the use of the school and other common portals for the administration of various kinds of programs.

Mr. **Price**. I would just make a comment. And that is that earlier in our discussion there was a lot of focus on development of individual skills of children or decision making as an important avenue for preventive efforts. I think we ought to shift our focus at least occasionally away from the individual child and toward various social institutions, not just the school. One can say that a health care delivery system is a skilled system to the degree that it's able to reduce the likelihood of infant mortality. A community is a skilled community to the degree that it's able to involve children and young people in constructive social activities. That sort of perspective frequently gets lost in our very individualistic way of thinking about development. That sort of perspective is part of what I hear you talking about when you talk about this issue.

Mr. **Garbarino**. Let me add to that the emphasis on skills that Chairman Miller started with. Skills don't come into being in a vacuum. They typically come into being in the context of relationships.

In fact, there's a growing body of research on the role of mentoring relationships in the lives of kids as being very important in how they turn out in all of these dimensions.

Then we have to ask, as Dr. Price is saying, where those relationships take place? They, too, develop in a specific social context. The school, and more broadly, institutions that serve children, provide the natural context I think for this to take place. That's one of the bright stories of Head Start's success. You have a whole cohort, a whole generation of parents who have found a focal point for developing their children's lives and their own lives as adults. If you visit Head Start centers, you see——

Mr. SAWYER. A small fraction of a generation.

Mr. GARBARINO. Yes. A whole group of parents for whom the program was targeted. But I think you can go beyond that to other parents who through their child's life in the school found a place in which they developed their capacities as volunteers, as helpers, as public speakers.

If you look at some of the development of people in PTAs and community schools, generally you find that it provides a context in which adults can develop themselves and their sklIls and their relationships, as well as their children.

Particularly when schools are small enough to permit there to be focus on relationships, the school is a natural setting for doing this, particularly in most communities where it is the only institution that virtually all children at least start out in contact with.

Mr. SAWYER. Perhaps you missed my point. My difficulty is not with the validity of that argument. It is with the degree of resistance even to points as fundamental as immunization. And the question becomes one of developing a level of comfort in the population at large with some of the easiest things we're talking about, not to mention some of the more difficult things.

Mr. GARBARINO. I guess from my point of view, the problem there is in part the visible national leadership that reinforces that skepticism rather than building the sense that there is a proper role for public institutions in supporting families. And as long as the rhetoric is one of defining the issue as intrusion into family privacy, rather than the community's natural affinity with parents in raising children, then it exacerbates that problem of skepticism rather than building the sense of confidence in public institutions.

Dr. BOTVIN. I think my own experience in the area of drug abuse prevention is that parents are keenly aware of the problem and desperately want a solution, want to work towards a solution, and the schools are a natural and a major socializing institution in our society. There are other socializing institutions that are important, but the school is clearly an appropriate place, I believe, for teaching these kinds of skills as well as the kinds of cognitive skills that they normally do teach.

Parents, I think, recognize that. In the area at least that I'm the most familiar with, drug abuse prevention, as I said, most parents are not only willing but they desperately want the schools to help them do something about the problem of drug abuse and drug abuse prevention in their communities.

And so, in general, there has been support on the part of parents, and we're working with hundreds of schools. We've seen tremendous support on the part of parents, on the part of people in the schools. However, it's incumbent upon those of us who work with these institutions to involve the parents, to involve the family, to let them know what we're doing. The only time we ever experience any difficulty is when parents are not sufficiently brought into the process and where they don't really understand what we're doing, and they may have a misperception. When we have a chance to explain what we're doing, virtually all parents, with few exceptions, are tremendously supportive of these kinds of efforts.

Chairman MILLER. Congressman Durbin?

Mr. DURBIN. Thank you very much. And I apologize to the panel. We are called back and forth to different committee hearings. I was able to hear some of the earlier testimony and I have read most of the testimony.

I live in Central Illinois, downstate Illinois. We are proud of our medical facilities. They are extraordinary for a city of our size. We have a medical school and a substantial number of doctors, far in excess of most communities our size.

And yet recent reports indicate that our infant mortality problems are substantial. In the State of Illinois we unfortunately have the highest infant mortality rate of any Northern state. And a lot of it has to do with problems in the City of Chicago, but it goes far beyond that.

For instance, in our neighboring State of Missouri, they are beginning to identify serious problems in rural areas with prenatal care where in fact mothers on Medicaid or uninsured mothers can find literally no doctors to see them during their pregnancy.

The most graphic case I have read about involved a mother in rural Missouri who was having her second child and knew that she would need a cesarean section. She was uninsured, had no Medicaid protection, was unable to see any doctor during her pregnancy until she went into labor, for the cesarean section. She had to drive 40 miles to the hospital for that to occur.

It seems to me, as we are discussing this whole question of infants and their health care, the area of prenatal care is one that deserves a great deal of attention on our part. And it strikes me that the present system as we have it devised has so many gaps and openings in it, and as we start to try to plug those gaps, whether it's with school-based clinics or Community of Caring, or some sort of prenatal clinic, we are just plugging small holes while we have been overwhelmed with the problem as it's viewed on a national scale.

Last Friday I visited a high risk neonatal care unit in my home town of Springfield at St. John's Hospital. One of the best in the state. It draws patients from 200 miles in any direction.

Sixty percent of the children admitted to the high-risk neonatal care unit of St. John's Hospital in Springfield, Illinois are from either Medicaid parents or uninsured parents, which tells the story, as I see it, as to what we are going to reap from this harvest of neglect on prenatal care.

Let me get down to my question.

As a society, we are very concerned about parental responsibility. I'm a parent. Everyone on the panel is. We will take a child away from anyone on that panel if we find that you are guilty of abuse or neglect. We set standards when it comes to school attendance. We link school immunizations to a standard as to whether or not a student can be part of school curriculum. We have standards when it comes to contributing to delinquency. We are virtually invasive when it comes to that level of parental responsibility.

And yet at a prenatal level, we take a totally different attitude. Until the child is born, society is not activated. A real dilemma here, I know. Issues of privacy, issues of community responsibility. Has anyone on the panel thought about how we might, either on a voluntary or some other method, establish standards for prenatal care for parents to give these kids the chance that they might not otherwise have?

Dr. MILLER. Well, I don't see how parents can set their own standards for prenatal care. I think we can help them to comply with standards. But I think those standards need to be developed more broadly through our social structures and professional groups.

I think the evidence is pretty good that if all barriers to access to provider systems are removed, that people will make use of them. I think that the problem pertains in communities where there is no provider who will see poor people, that will accept Medicaid payments or where there are such enormous cultural gaps between the population and the provider system.

Mr. DURBIN. Let me give you an example. Maybe it makes it more tangible. I agree with you. Access is a major problem.

In my community of 22 obstetricians, 15 will not take a Medicaid patient. So you have seven to draw from, if you're on Medicaid. And I don't know where you turn if you have no insurance, public or private.

But let's assume for a second that an obstetrician has set an appointment with a Medicaid mother. She has come for her first appointment and she is a high risk mother. And then she fails to show up for the second appointment.

At that point, do we have a societal responsibility?

Dr. MILLER. Yes. I would want to send a public health nurse out to that home and find out why and help her solve the problem so that she keeps the next appointment. And whether it's a problem that she didn't have transportation or didn't have someone to care for the young children or whatever it might have been, there's a solution for it.

Mr. DURBIN. I think your testimony indicated that other countries are doing just that.

Dr. MILLER. Yes.

Mr. DURBIN. That certainly is not the case as I understand it in most states of the Union, if any.

Dr. MILLER. No.

Chairman MILLER. Dr. Hamburg?

Dr. HAMBURG. I'd like to comment on that in the same vein.

It is, you put your finger on it, an actually crucial issue. I mean if there is damage at that point, it's very likely to have serious lifelong consequences. So as Dr. Miller said earlier, the infant mortality rate is a proxy for a lot of other things about how we treat our children and how we foster healthy development.

Now, you know, sitting right here in the District of Columbia, the infant mortality rate is more than triple that of Japan or the Scandinavian countries and much higher than the other countries that he was talking about.

Now, to be candid about it, much of that is concentrated in the outrageous difference between the black and white levels in the District of Columbia and all over the country.

But there is a success story, for one disadvantaged minority. This differential is no longer true for the Indian population, the Native Americans. With a focused, sustained, well thought out effort, the Indian Health Service has brought infant mortality and maternal mortality rates to the white level. The Indian community still has tremendous disadvantages in other respects. But a sustained effort has brought these two very important indicators down to the white level, world-class infant- and maternal-mortality achievements. How is that? Well, essentially, through education, through access, through the application of a basic core of scientific knowledge about what it takes to do it. It was an organized, focused effort and you can, say yes, it's easier on reservations and so on, and agreed, but at least here is a major example in this country where we have tackled a drastically disadvantaged population and changed these outcomes in a way that I think has to give us encouragement that some adaptability of those basic approaches would be useful in other contexts as well.

Mr. DURBIN. Thank you. I guess my general observation is that I've come to the conclusion that child abuse and neglect can start almost at the moment of conception and that from a legal viewpoint, societal viewpoint, we tend to wait until birth to start enforcing any standards. And it strikes me as I get into it more and more that we are faced with a real challenge and quandary here as to how far we can go and what we can achieve.

Thank you very much.

Chairman MILLER. Mr. Coats?

Mr. COATS. Thank you, Mr. Chairman. Dr. Miller, I was intrigued by your answer to Congressman Wolf's question on parental notification. And I just wonder if there are any circumstances in which you feel parental notification ought to be part of——

Dr. MILLER. Well, I really wasn't given an opportunity to qualify that to the extent that it needs to be.

I don't know what the age is for lower cutoff. But I think that all counselors that I've talked to would take the position that they would help counsel that child into advising parents and involving parents in those discussions and that that works far better than compulsory notification. The experience with areas that have tried compulsory notifications has been that parents haven't been any better advised before those rules were written than they were after.

Mr. COATS. You would acknowledge that a more comprehensive treatment for whatever problems young people are experiencing are probably best handled through involvement of the entire family unit?

Dr. MILLER. Indeed. And as a matter of fact, we don't have very good data about the effectiveness of educational efforts, sex education, family life education and so forth. But some of the best evidence we have is that those efforts are most successful if parents are involved in them, too, in the sense that the parents are being educated at the same time as their children, maybe not necessarily in the same room and under the same roof at the same time, but in the same program, and that that generates discussion between parents and children that is far more effective than efforts to compel it.

Mr. COATS. May I just make a comment, and then I'll be happy to call on you.

We've received a lot of testimony before this Committee indicating that problems are not one dimensional, they're multi-dimensional. A more holistic treatment has to be provided if we're really going to achieve success, and whether we're talking about drug abuse or alcohol abuse or spouse abuse or teenage pregnancy, that same thing seems to hold true.

Yes.

Mr. GARBARINO. I just wanted to make two comments. One, that certainly everybody would agree that parental involvement always appears as a positive influence, when it's voluntary, when it's appropriate. But we have to recognize at least two things in talking about this issue.

One, that for a significant number of kids, their parents are the problem, whether because their parents have physically or sexually abused them or allowed others to do so, or created a climate in the home that the child is driven out into the street or into inappropriate sexuality. Any absolute rule that requires that any professional involvement with a child is contingent upon parental awareness sets up a number of children in a situation in which they either will not get help or they will be further harmed as a result of getting help.

And of course the other thing is that in a sense there is no biological basis for talking about parental consent for children to get involved in sexuality. It's not like joining the Army where you have to get consent. Children come with the equipment and parental consent, in a sense, becomes irrelevant from the child's point of view unless they see the rationale for it. And whether they see it or not is going to be a function of what the parent has done before in the life of the child—the kind of relationship they have developed, whether it's confidence, trust—and the kind of help they can get from professionals. So I think it's a false issue in a sense.

Mr. COATS. Well, I don't think anyone is advocating parental consent to engage in sexual activity. I think that it comes back the other way. And that is the dispensing of what many consider prescription drugs, drugs that may have a harmful effect, that a parent has the right to know that a child is receiving that dispensation. We require it for a nurse to dispense aspirin or cold medicine. Every time one of my children goes into the health clinic at their high school, with a fever or sniffles or whatever, I receive a call from the clinician who says to come pick up my child. I've responded by saying what's the problem? Well, they have a slight temperature or they have a cough. Could you give them an aspirin or whatever? We can't do that. We're not allowed to dispense any kind of a medicine. Some people feel that dispensing birth control devices to women, birth control pills, involves some medical risks.

And perhaps if we have laws prohibiting the prescription of aspirin we ought to have laws prohibiting the prescription without parental consent of birth control pills.

Dr. Kenny, I was impressed greatly by Eunice Shriver's recent article which appeared in the Washington Post and I certainly have to agree with a lot of things that she says.

I'm wondering if you could elaborate a little bit about that, about the Foundation's stand and Mrs. Shriver's stand on school-based health clinics and what some of the problems are with these clinics. Then on the other end of the scale, would you talk a little bit about your Communities of Caring and how they differ from school-based health clinics and what they supply that children can't get from health clinics?

Mr. KENNY. I mentioned a little bit earlier I think that the notion of a school-based clinic without a more comprehensive program that helps kids talk about a lot of the other issues involved is not comprehensive enough and that people really need to be involved and the parents need to be involved, the family needs to be involved. The Community of Caring is getting everyone involved because we're talking about a value decision that's being made, and to have the input from the various different people in the community I think is important.

The Community of Caring is just recently working in schools and in junior high schools and a lot of—I can't provide a lot of hard data on the comparisons between the Community of Caring school and a health clinic school. That would be difficult to do.

Mr. COATS. One last question. Dr. Miller, don't you see the problem that comes with a broad-based prohibition against parental notification? I understand that there are kids there for whom the situation at home is such that maybe that's why they're in trouble in the first place. I understand there are kids that don't have parents at home. But when you're advocating a comprehensive school-based health clinic dispensing contraceptives to anyone that wants to show up however often they want to show up to receive the contraceptives, doesn't it also send a message to those kids that do have parents at home that hey, you're 14 now, you make your own decisions; you don't need to involve the parents; you can pick up free contraceptives. Doesn't it send a message that an attitude of permissiveness, that adolescent sex is okay (everybody's doing it) as long as you take some precautions by stopping by the health clinic on the way out of school. Aren't you concerned about that?

Dr. MILLER. I know of absolutely no evidence that that dynamic pertains.

Mr. COATS. Well, Mrs. Shriver thinks there's a lot of evidence that that pertains. I commend to you this OpEd article that she prepared through the Joseph Kennedy Foundation that appeared in the Washington Post. Mr. Chairman, I'd ask unanimous consent that that be entered in the record today.

Chairman MILLER. Without objection.

[The article follows:]

THURSDAY, MARCH 19, 1987

The Washington Post

Eunice Kennedy Shriver

Rx for Teen Pregnancy

Every day we see another article, another full-page advertisement, another television interview urging us to accept contraception and abortion as the only answers to preventing the birth of babies to teen-age parents. It's the technological solution to a problem that plagues us: too many teen-agers having babies. Pregnancy is a physical condition—therefore there must be a way to fix it. And the place to fix it is where the teen-agers are—in the school.

As a parent, I am not against the teaching of birth-control techniques to teen-agers. But I, and parents like me, reject contraception as the first, best or only solution to the problem of teen pregnancy. To transform our schools into contraceptive dispensaries is to give a strong message that sex in adolescence is okay, that it is an approved extracurricular activity. "Do what you please but do be careful" is the message we would be sending.

I have worked with teen-agers for 35 years—in prisons, in schools and as a foster parent. I've had contact with them in many teen-age pregnancy programs. When young people have a real problem, such as pregnancy, alcohol or drug abuse, and you ask social workers or psychiatrists about it, the first thing they want to know is whether the teen-ager has received or given love, whether the teen-ager is part of a family or has any connection with one. Absence of love and lack of family connectedness are the underlying causes of most adolescent pathology, which no pills or devices can cure.

The basic mission of our schools is to develop character, motivation and love of learning in their students; to have a civilizing influence on them. The school is where they are exposed to the greatest works, ideas and images of our civilization; where we teach our students to search for the right answer, not merely the easy answer.

Our society is obsessed with sex. It is part of every message our teen-agers receive—in their music, on television, in advertising, in the magazines they read, the role models they choose to emulate. But is sex to be thought of as just another appetite to be fed but not subject to inner controls?

Adolescent needs will be fulfilled only when we begin to understand that teen-age pregnancy concerns the whole person, the family, the community and the society, not just the sexual act of the individual at risk. It involves moral and ethical issues, not simply mechanical solutions. It requires, above all, communities that care.

Over the past seven years, more than 100 hospitals, clinics and health centers throughout America have transformed themselves into just this kind of caring community. Instead of concentrating on the results of teen-age sex by handing out contraceptives and abortions, these "Communities of Caring" focus on the causes of much early sexual activity and pregnancy: low self-esteem, peer pressure, alienation from parents and emotional confusion.

"To transform our schools into contraceptive dispensaries is to give a strong message that sex in adolescence is okay."

It's an approach that has worked.

With teen-agers who have already had babies, the support and encouragement they receive in a Community of Caring program have reduced the rate of second pregnancies by more than 60 percent from the national average and have motivated 70 percent to 80 percent of the young women to return to school and become independent rather than to drop out and turn to welfare.

As the Community of Caring approach has proved its value in changing the lives of pregnant adolescents and their babies, it has become obvious that it could be equally successful as a program for non-pregnant teens.

Beginning with primary prevention models in a few cities, the Community of Caring approach is being requested by local school systems in such cities as New Haven, New York, Newark, Los Angeles, Cleveland, Kansas City and by entire states such as Utah and Texas.

These educators value most the Community of Caring's basic principle that learning cannot take place in a moral and ethical vacuum. As Dr. John Dow, superintendent of schools in New Haven, has said, "The Community of Caring's insistence on the values of responsibility, caring and sharing will be the salvation of the public schools of America. What will save our schools is a return to the traditions and the pride on which our schools were founded. Our young people need to feel loved and cared for, irrespective of the fact that we are public institutions. The Community of Caring lets us provide that love and harnesses for our students the resources and support of the whole community, not just one or two teachers assigned the role of sex educators."

A high school English teacher had this to say about the program: "The Community of Caring has made a difference in the way I teach. Before, I'd talk about Hamlet's cruelty to Ophelia only in terms of the dynamics of the play. Now I'm more sensitive to the fact that sitting in my classroom are a dozen Ophelias, vulnerable to the emotional manipulation of 50 Hamlets right in my school. So I take time to let them talk about relationships like this in their own lives."

Here are some other thoughts:

From a coach: "I'd listen to the locker room talk and think, 'Well, guys will be guys.' Now I realize that this kind of talk is pressuring a lot of good kids to try to show they're grown-up men. And a lot of sex is happening just to prove a point."

A health educator: "Some people think clinics in schools are the answer. They're not. Most kids visit the clinic at most two to three times a year. What they need is our caring and our awareness *every* day, and that's what we try to give them."

A 16-year-old student: "If you aren't having sex or bragging about having sex, you're a wimp. Now I know someone is willing to listen, to help. I think that's going to take the macho pressure off a lot of guys like me."

Let us listen to parents, teachers and teen-agers themselves before the vastly increased commitment of resources called for by the advocates of contraception and abortion becomes national policy. There needs to be a recognition by public officials at all levels that there are effective approaches to adolescent pregnancy more in keeping with our traditions and values. Without these, we will only continue to pursue with cold illogic the fantasy of a magic bullet.

The writer is executive vice president of the Joseph P. Kennedy Jr. Foundation, which has major programs in mental retardation and adolescent pregnancy.

BY ELEANOR MILL

Chairman MILLER. If the gentleman would yield, I just think that rather than that dynamic, there's a much greater dynamic in the absence of a clinic or a Community of Caring or anything else. What really is the case in the overwhelming number of high schools in this country, is that nothing is taking place, that children are getting pregnant in what we consider an epidemic number and engaging in premarital sex without any guidance, because there are only a handful of clinics in the entire United States.

And I think you know—I was just saying, we did this once before, maybe we should do it again for members of this Committee, they ought to go and sit in these clinics. We'll be glad to take you back to St. Paul or the Indian Reservation in New Mexico or whoever you'd like and see what the approach is. I think you will find out that the dynamic is built on the great principle of this country, and that is abstinence. The history, from Jonathan Edwards forward, is abstinence. And the evidence is that it's not working out terribly well. But I think you'll find the clinics, and I think you'll find in white, suburban, upper middle class neighborhoods, there are kids there that think their parents will kill them if they discuss these issues or if their parents find out; and what we find out historically is counselors are able to bring them around to a point where they can open the door so there can be some communication between parent and child. And to make a harsh rule that nothing can be done unless there's consent or no consent, or written forms, just belies everything we know about children and adolescents and families and histories. And we're going to spend more time tying people's hands and dealing with that question than with a child in crisis.

And as I think we have all found out, we just don't know when that moment of sexual activities is going to creep up and touch us on the shoulder. I mean when it happens it's going to happen. The question is whether or not there are programs available to give a body of decision-making tools to these children.

And I just don't know where the clinic is that's throwing contraceptives at kids. We don't need parental consent to walk into Dart Drug, if that's the issue. Let's not pretend that that has stood between children and the decision to engage in premarital sex.

I just think that we ought to look at the hard evidence and the way that most of these clinics have been run. And the other thing we ought to look at from the social aspect is the overwhelming positive impact they have on the devastating numbers that we keep giving speeches about. So far, speeches haven't diminished any of the numbers.

And I just would hope that we would have time for some members to go and look at the research and go participate in the clinics. It's rather an astonishing experience in terms of the kind of care and the human approach to this problem that's delivered certainly in most of the clinics that I and other members of the committee have visited.

Mr. COATS. Well, it might be instructive for a lot of the members of the Committee who haven't had the opportunity to do that, and we do have a lot of new members and old members who haven't taken advantage of that opportunity to do so. I just wish I had the same confidence in the ability of the health clinic technicians to solve the teenage pregnancy problem that the Chairman does and I think there probably is dispute over the numbers as to how successful they are.

We know that there's been a significant decrease in the amount of births in those school populations where health sex clinics exist but we're not sure whether that same statistic translates into the number of pregnancies. And we know that the number of abortions has risen considerably. There are a lot of legitimate questions that I think need to be asked about the efficacy of school based health clinics, how successful they are, what schools they ought to be in and whether or not they do in a sense send a message that says adolescent sex is okay, let's just make sure that we do it safely. And I just am concerned, as a number of parents are concerned, that that's not the message we ought to be sending.

No one disputes the need to better educate our young people about the dangers of teenage pregnancy and adolescent sex. The question is, what is the best vehicle to do that and whether the schools are the proper forum to conduct that particular type of activity, and I think that question is out and perhaps this is a good reason why the committee ought to reopen the issue and take another look at it.

Chairman MILLER. Congresswoman Johnson.

Mrs. JOHNSON. I have a brief question and then a larger question.

My more targeted question is to Dr. Price. I was interested, in skimming through the programs, to realize that you cite no programs that deal with prevention of midlife divorce. And since your approach is to look at all of the crises faced by people of all ages, what we need to be able to better prevent in order to be able to mobilize our resources as a society, I'm interested and surprised at that omission and personally feel when I look at what's happening to adolescents in our society that we cannot afford any more to ignore the crisis that's going on in midlife marriages in America.

We had a hearing before this committee I guess three years ago on the impact of nuclear war on children and on adolescents. And in the panel of psychologists, the two primary fears that were cited that were a burden to teenagers were the fear of their own failure and the fear of their parents' separation.

And as the parent of children who have just now moved out of the college category, I have been absolutely inundated with stories about we're friends because we're alike; well, what do you mean by that? Well, our parents aren't divorced.

And I think unless we begin to look at why aren't we able to support development of relationships in midlife, we aren't going to be able to talk about supporting relationships, development of relationships among adolescents.

Mr. PRICE. I'd be happy to comment on that. First, I couldn't agree with you more that fear of separation for lots of our teenagers and younger children in particular is a major concern, a major preoccupation, a major source of distress to children.

I couldn't agree with you more that we ought to be focusing on developing programs that engage in teaching people relationship enhancement. It's not something you finish learning when you're six or 12 or 18 or 35.

The demands and the strains that exist in many marriages as the life course continues change. People sometimes adapt, sometimes they don't.

The one thing I should commend to you is that when we selected the model programs, we selected them because rigorous research evidence that they were effective was available. I would love to see some resources put behind the testing of the effectiveness of relationship enhancement programs across the life span. It has not happened. The research isn't there. And until it is, we certainly can't call it a model program.

Mrs. JOHNSON. Thank you. I thought that was probably the case and I'm glad to have it on the record that the research isn't there and that that is essentially a gap that we have overlooked and are continuing to overlook, and it has enormous importance with children as well as for parents.

What I hear you saying at your simplest level—and I thank the panel, all members of the panel, for really very fine testimony, and through it I think we can get a clear idea of how we need to deal with prenatal, postnatal care issues and also those issues involving getting a family off to a good start in terms of parenting and so on.

And from the information that you have given us and the information that we have, I think we can probably understand how to do that. Whether we have the will to do that or the money to do that or whatever it takes to do that I'm not certain, but I think that's a manageable problem.

I think this other issue, how do we deal with drugs, with sex, with teen pregnancy, with tobacco, with alcohol, is more difficult and what I hear you saying is that if we could focus on responsible decision making and helping children to understand their self interests and the interests of others and how you go about identifying those interests and making responsible decisions for yourself, then almost as a subset of that process we could deal with these other issues, and that what we ought to be focusing on is perhaps not the argument about informing parents, as important a problem as that is, because it deals with in a sense, a very specific situation, a smaller number of children, but the larger issue of the lack of responsible decision making in the experience of our children and in the curriculum of our schools, in the school experience of our children, which somebody pointed out, and the curriculum.

Is that what this all boils down to? I'm interested because if we're going to take a more holistic approach, and a more preventive approach, we have to try to find a way to put it into a context that society can accept and deal with and hope that after doing that we can move on to have its effect on sexual decisions. I mean it's easier to have it, to talk publicly about its effect on smoking. But would it be of a piece. Is that what we should be focusing on?

Anyone who wants to respond.

Mr. BOTVIN. Yes. Amidst the kinds of skills that kids need to learn, certainly people would point to the need to learn how to effectively and responsibly make decisions. I wouldn't encapsulate the discussion today in quite the way that you formulated it as relating to responsible decision making. The kinds of things that we have been talking about that relate to prevention and particularly that relate to skill enhancement really cut across the board covering a broad range of skills. Decision making is one of them but there are also other important personal and social skills, how to cope with change, how to cope with stress and anxiety, skills that relate to interpersonal relationships. All of these things are part and parcel of what kids need to learn during the adolescent period. Unfortunately, unless some kind of systematic education is provided for them, they tend to blunder through this period not learning these skills. And kids who don't learn these skills end up being at risk for a whole host of psychological and to some extent also physical problems.

So I think it's somewhat broader than your formulation.

Mrs. Johnson. But skill-oriented?

Mr. Botvin. Skill-oriented, right. Competence enhancement, skill oriented.

Mr. Garbarino. I'd want to make the point that one reason that this is so important now and the reason it has changed is that our expectations of the level of competence for people to get through day to day life has increased dramatically and I think that's across the board, I mentioned academically before, but even in other areas as well.

For all our talk about premarital activity, let's remember that if you look for example at the children born in the late 1940's, early 1950's, if I recall correctly, one of the estimates was that 40 percent of all those children born in that period were conceived premaritally.

So what has changed is not so much premarital sexual activity but its relationship to subsequent marriage. That's an important thing to keep in mind. It's not somehow that kids discovered sexuality but that the context has changed.

By the same token, keep in mind that teenagers always play out a set of melodramas about risk taking, about being bad, about stepping out. What has changed is the level of danger associated with doing that. And I think that we're demanding a much higher level of sophistication of teenagers to make it through than we ever did before, whether it's academically, socially and so on. And those skills, it's not that we ever had those skills particularly, and we've lost them. We never needed them as much as we do now.

So part of the problem is how do we retool some of these institutions so that they can build the relationships, whether they're mentoring relationships or decision making, that kids can now cope with what they have to cope with?

I would daresay that most of us in the room who are over 30, if they had to face a lot of the issues that contemporary teenagers do, for example, the threat of AIDS because you engage in sex, or the threat of perpetual economic failure if you couldn't graduate from high school, I'm not sure that we would have made those decisions any better than today's kids do.

In fact, if anything, we might have made them worse because we were less sophisticated about decision making.

So I think that the problem is a broad one and it's not simply recapturing some lost state that we had but recognizing that it's a whole new ball game, and kids have to be able to do more, whether it's sexually, educationally, politically, all the rest of it.

Mrs. JOHNSON. And are there things in our current system that we're doing, I mean there are some things that I see that are involving an enormous expenditure of resources. And if we're going to turn the system around, we certainly are going to have to redirect our resources as well. I have specifically in mind a tremendous amount of state resources that have been out in place to deal with mandated reporting of child abuse, or possible child abuse.

Recognizing how desirable all that is, theoretically more than 50 percent of those reports are not valid. How are we going to change that system so that we can free some of those resources to do some of these other things which will in the long run prevent the abuse that's being reported?

And are there groups working on those issues?

Mr. GARBARINO. Let me respond to your child abuse question, because that is something that I'm supposed to know something about.

When you say 50 percent of the reports are not validated, that shouldn't be interpreted as meaning 50 percent of the reports are not valid. It simply means that given current investigation techniques, standards of evidence, resources and so on, that investigators are unable to develop a coherent case that they could use to move the next step forward.

And I would daresay that the actual number of false reports for child abuse is much, much smaller than that. And that figure I know has been promoted, but I think it's a misrepresentation.

Nonetheless, I would agree that one way to reduce that problem would be systematically to move resources into prevention of child abuse.

I know in Arizona, for example, at one point they tagged onto a prison allocation bill a requirement that for every dollar spent for prisons there had to be ten cents spent for child abuse prevention.

Even gross formulas like that would have an impact here, by diverting resources into prevention. The same thing is true with the prenatal care.

If we were to set a cap on the cost for neonatal intensive care and require a matching figure for prenatal care, which is not primarily physician care but is heavily nurse-oriented care, we could cut down the figure. But as long as we allow the treatment figures to drive the system, the resources are never allocated to prevention. I think it has to be a kind of hard-hearted formula to push resources to prevention that pays off but never has the political clout.

Mrs. JOHNSON. A comment. I'm not sure we can continue to write laws that propose that we can do things that we don't have the resources, that we can't do, and neglect the things that we know we can do that can make a difference.

I would agree with you that the child abuse statistics don't indicate that there wasn't a problem there. But if in those that you're investigating you look at what's been done in those situations, I just wonder if we can continue to direct our resources so heavily toward investigation rather than treatment and prevention. Because that's what I see happening, in the public sector. And I'm concerned about that and think that we're going to have to deal with that if we're going to turn it around.

Thank you very much.

Chairman MILLER. What takes politicians aback is the age at which we're dealing with some of these problems. We heard the discussion with Congressman Wolf on whether or not you needed parental consent for a 12-year-old. We're talking about a lot of activities that we used to believe were reserved for adults that now obviously are starting with children at a very young age. And it appears that there has really been a shortening and a rather substantial compression of what we viewed as childhood, whether from forces of marketing, media, environment. I don't add them all up to what they mean—but ten year old boys and ten year old girls, if you read the New York Times Magazine, are given adult fashions, as are seven and eight year old girls. I think it translates a little more rapidly to the girls. Therefore, they're called upon as they look at the models in the magazine to stand certain ways, to act certain ways, to look certain ways, and it seems to me that you see a dramatic compression. So that it's foreign to those of us who are older and didn't experience that perhaps. But it also seems that that's the reality. And the question that some of you seem to be posing is how do we get a hold of the reality? I don't like the notion, I don't want to accept the notion that I have got to talk to, that I had to—in the past tense—talk to my children at a very young age about their sexuality, about premarital sex, about their responsibilities as young men and all of that. But it seemed to me this thing was rushing at me like a train, and I had to come to grips with it. It wasn't wholly voluntary, but it just became the reality of it.

What you're suggesting is, again, that the institutions need to adapt to that reality to give children and themselves, people in the institutions, some of the tools to enter into quality decision making, positive decision making in terms of the choices.

But again, I'm asking for a notion or something. When you look at the problems in the age levels that we're dealing with, do you get this same sense that there is a compression of that period of time that was sort of reserved when you did what you wanted to do and there was no harm?

My kids always want me to tell them stories about my youth and I tell them that those were pranks then and today they're felonies, because everybody has lost their patience with kids doing those same things. You used to hop the train or whatever you were doing. Today they cart you away. You get lost in the system as we all know. Don't let that happen to you.

Is there some accuracy in that or is that just one politician's notion of what's going on? These threshholds keep dropping and it almost embarrasses us to talk about them when we have to think of them in terms of public policy.

Mr. GARBARINO. Well, there is a whole series of books. Most of them are not heavily research based, but they have at least a passing conversation with research, about this question of dropping——

Chairman MILLER. We do better at conversations than we do at heavy research around here.

Mr. **Garbarino**. But one evidence of that I think is, I think, a reported drop in, for example, the age at which parents feel children can care for themselves without adult supervision. That is significant, I think, because we do have research that says that one of the most potent influences on whether a child in early adolescence will become involved in any of these problems you're talking about is that they have a sense of adult supervision, whether they're in physical proximity or not. So I think we could relate those two things.

If people now believe, as one survey reported, that eight year old children do not require adult supervision let's say after school, and they're quite competent, quite capable of caring for themselves every day after school for many hours, it's only a short step to say that a child much earlier in life will get the idea that they're not being supervised by adults, and that can translate into vulnerability to these influences. So I think you could start with that, raising the Nation's standard of care with respect to adult supervision. We know that every day after school it won't be long before a majority of all nine and ten year olds are going home without adult supervision. It's only a short step, we recognize, if we start about teenage sexuality, where do most teenagers have sex? They have it at their home or their boyfriend or girlfriend's home in the late afternoon. Because it's the one place in America they know they will not be bothered by adults.

Well, that is, I think, where the issue lies, not in these questions of some of the other ones I talked about.

So I would endorse your view that there has been an erosion, downward erosion of what it means to be a child and the operating principle is adult supervision.

Chairman **Miller**. Anyone else?

Dr. Hamburg?

Dr. **Hamburg**. I have a more general response, Mr. Chairman.

It seems to me as I have heard the discussion and the questions and exchanges this morning that there is an underlying deep concern and perplexity about what's happening in American society, or perhaps more generally in modern society, and in this case, what's happening to our children and youth. We try wherever we can to connect it with relatively hard information. But I believe that we need a great intensification of hard headed, best available, world class research in behavioral and social sciences to understand better these enormous changes that are taking place all around us. We stab here and there at it, make plausible guesses, and there's a great tendency to come to very firm or indeed heated conclusions that would simplify our task. If only it were so, that one or two or three key factors explained everything that's going on, then we could deal with those. But as Mr. Coats said, these problems are clearly multidimensional in some way or other, multifaceted changes and an enormous transformation of life that has taken place in this century that seems to be accelerating now. We need to understand it better. Take one example.

We heard some concern earlier about the role of the nursing profession in sexual permissiveness. I am not a nurse, but I would say on behalf of nurses I doubt whether the role of nurses in this society is or will be to enhance sexual permissiveness. But we've barely touched on the media.

I happened to come across in the airport yesterday Mrs. Gore's new book about the media and sexuality, the media and violence. I would say that there is a genuine problem there that needs much deeper research. That's only one of many examples of transformation factors. There wasn't any television when I was in early adolescence. Maybe the world is much better off, maybe worse off, maybe some of each. All I'm saying is there are many, many facets of these dramatic changes of our time that require, to the extent possible, careful and systematic and dispassionate study. And so when you put on some other hat and address the support for serious research on these problems, I hope you will do what you can to foster it.

Chairman **Miller**. Thank you. Any other comments?

Thank you very much for your time and for the material you provided us. One thing, Dr. Kenny, if you have those evaluations, the actual evaluations, we'd appreciate it if you could make them available to the committee just so that we can incorporate them in this part of the report.

Mr. **Kenny**. I'll be glad to do so.

Chairman **Miller**. Thank you very much.

[Whereupon, at 12:20 p.m. the committee recessed.]

[Material submitted for inclusion in the record:]

["Community of Caring Evaluation," Reports are found in Committee files.]

Second Year Report

COMMUNITY OF CARING EVALUATION

Conducted for the

JOSEPH P. KENNEDY JR. FOUNDATION

July 15, 1987

Directed by

Brent C. Miller, Ph.D.
and
Patricia A.H. Dyk, M.S.

Department of Family & Human Development
Utah State University
Logan, Utah 84322-2905
(801) 750-1552

Acknowledgments

Appreciation is expressed to the many people who are helping to make this study possible. Foremost, of course, are the Kennedy Foundation officers and staff, especially Eunice Kennedy Shriver, Robert Montague, and George Zitnay. In Las Cruces, New Mexico, we have been ably assisted by Shirley Dundon and Pearl Hawe of the Adolescent Family Life Program and by Sharon Schiller, head of Maternal-Infant Nursing at Memorial General Hospital. At St. Margaret's Hospital in Boston, Fran Kellogg Troutman, Nancy Strunk, Sister Marie, and Jay Lodi have all been excellent sources of support and assistance with this project; so too have the nursing and midwife staffs of these hospitals who helped us with data collection. Finally, we acknowledge the cooperation of several hundred adolescents who have told us about their experiences during an oftentimes difficult time in their lives. Thanks also to Melinda Simmons for her extremely professional work in typing our protocols and this report.

Second Year Report

Community of Caring Evaluation
The Joseph P. Kennedy Jr. Foundation

Table of Contents

1. Executive Summary 1

2. Introduction 4

3. Sample Characteristics 8
   - Site and Group 8
   - Marital Status 8
   - Age 9
   - Race 10
   - Month of Pregnancy 10
   - Month First Saw Doctor 11
   - Parents' Educational Background 12
   - Current and Future Educational Enrollment 14

4. Methods 16
   - Research Design 16
   - Prenatal Survey Procedures 18
   - Postpartum Survey Procedures 19
   - Adjustments to Comparison and Treatment Groups 20
   - Statistical Analyses 22

5. Knowledge of Reproduction, Contraception, and Childcare 25

Knowledge of Reproduction 25

Knowledge of Contraception 27

Knowledge of Childcare 29

Total Knowledge 30

Summary of Knowledge Results 32

6. Personal Feelings, Self Esteem, and Schooling 33

Locus of Control 33

Self Esteem 35

Educational Attainment and Aspirations 37

7. Sexual Values and Responsibility 41

Clarity of Sexual Values 41

Premarital Sexual Permissiveness 43

Coercion in Sexual Relations 45

Importance of Birth Control 46

Pregnancy Risk Behavior 48

8. Family Relationships and Social Support 50

Importance of Families 51

Perceived Family Strengths 52

Direct Family Presence and Aid 54

Social Support 60

9. Health-Related and Parenting Outcomes 61
   Maternal Health Preliminary Results 64
   Birth Outcomes Preliminary Results 64
   Mother-Infant Interaction Ratings 67
   Mothers' Health-Related Behavior 68

10. Conclusions and Future Plans 70
   Future Plans 72

References 73

Appendix A: Prenatal Survey 75

Appendix B: Postpartum Survey 91

1.0 Executive Summary

In June 1985 a study was begun to evaluate the effectiveness of the Community of Caring program for pregnant adolescents and their families. St. Margaret's Hospital in Boston and the Adolescent Family Life Program in Las Cruces, New Mexico were selected as the sites to be studied. Evaluating outcomes of the CofC required before (prenatal) and after (postpartum) comparisons of adolescents with a control group.

After making arrangements and pretesting instruments, prenatal data collection for CofC participants and comparison subjects began in both Boston and Las Cruces during February 1986. By the beginning of April, 1987, when the analyses for this report were begun, prenatal data had been collected on 267 subjects. The young women being studied are: 13 to 19 years old with the largest number being 16-17; in the mid trimester of pregnancy when they enter; 82% single; 41% white, 40% Hispanic, 18% Black. In general, Community of Caring participants and comparison adolescents are virtually identical on all prenatal outcome measures, although the two groups differ on some background characteristics.

In the overall design of the three-year evaluation, postpartum surveys are planned twice (approximately 6 weeks and 1 year postpartum) to assess short and long term changes. The first postpartum survey has been sent to 126 of the young mothers who have delivered and 95 completed surveys have been returned; the others are being followed up. Postpartum surveys will be sent to adolescents who are still pregnant as they deliver. The one-year followup survey is just now being prepared.

The preliminary analyses conducted so far and presented in this report must be viewed cautiously because they are based on only the third of the sample for whom both prenatal and postpartum data have been obtained. The preliminary analyses suggest the following general changes and trends in the total sample of adolescents (without regard for level of participation in the Community of Caring). Comparing the prenatal and postpartum survey responses the following have generally:

- Increased: knowledge of reproduction, contraception, and child care; clarity of personal sexual values; belief in the importance of birth control; self-reported use of tobacco and alcohol (use was lower during pregnancy).
- Decreased: permissive attitude toward premarital intercourse; attitude that pressure is acceptable in sexual relations; frequency of sexual intercourse without using contraception; feelings of self esteem and internal locus of control; perceptions of family harmony and pride.
- Stayed the same: attitudes about the importance of the family; percent enrolled in or completed school; future educational plans.

In addition to this general profile of total sample changes from pregnancy to postpartum, a variety of measures have been taken at single points in time, such as the maternal and infant health indicators reported in Chapter 9.

The more important analyses being done, however, at least the more specific reasons underlying the study, are to determine if participation in the Community of Caring program improves the lives of young mothers and their child(ren). For example, while knowledge of reproduction increased among adolescents as a whole, did knowledge increase more among Community of Caring participants than nonparticipants? Or, while perceptions of family harmony and pride showed a general decline in the total sample, was this less so, or even reversed, among Community of Caring participants relative to nonparticipants? If so, can these more favorable outcomes be attributed to participation in the Community of Caring?

Based on the 95 completed postpartum surveys, preliminary analyses suggest that Community of Caring participation has little effect on the outcome variables being studied, net of other influences. That is, after adjusting postpartum outcome measures for the effects of relevant control variables (such as age, marital status, and parents' education) and removing the effects of prenatal (pre-existing) levels of the outcome variables, Community of Caring participation is usually not related to the outcome variables studied here. However, the analyses are preliminary, being based on only about one third of the total sample who have both delivered and completed the first postpartum survey.

Future analyses will be more conclusive, being based on the total sample which is nearly three times as large as the portion who have completed postpartum surveys so far. In addition, the one-year followup survey will be completed during the coming year, allowing us to analyze longer term outcomes that only become apparent over time, such as repeat pregnancy, educational attainment, and productive employment.

SYNOPSIS OF MAJOR ACCOMPLISHMENTS OF COMMUNITY OF CARING PROGRAMS

PREPARED FOR:

THE JOSEPH P. KENNEDY, JR. FOUNDATION
WASHINGTON, D.C.

PREPARED BY:

THE CENTER FOR HEALTH POLICY STUDIES
COLUMBIA, MARYLAND

BRIAN J. BALICKI, VICE-PRESIDENT AND
PROJECT DIRECTOR

MAY 6, 1987

OVERVIEW

This paper summarizes achievements of programs participating in "A Community of Caring" Initiative. This initiative was conceived and developed by the Joseph P. Kennedy, Jr. Foundation in response to an ever worsening national crisis in the incidence of adolescent pregnancy. The Community of Caring is a values-based educational program designed to assist adolescents with overcoming the challenge of an early pregnancy, and becoming independent, productive contributors to society.

The goals of "A Community of Caring" include:

---guidance and assistance to adolescents in dealing with adolescent crises such as early pregnancy, parenting, inappropriate sexual behavior, school dropout;

---promoting responsible decision-making, with special emphasis on sexual decision-making;

---promoting meaningful non-sexual friendships among adolescents;

---promoting communication among adolescents, their parents, educators and other adult figures;

---teaching and promoting universal values of caring, respect, responsibility, honesty and family

---promoting good health and physical fitness, particularly among adolescents experiencing an early pregnancy

---and preparing adolescents for their future roles as responsible, caring adults.

Since 1984, the Kennedy Foundation has sponsored an independent, longitudinal study of 15 programs across the country. These programs include health and human service agencies, five of which receive supplemental funding from the Kennedy Foundation to train professionals in their communities in the Community of Caring.

METHODOLOGY

Beginning in April 1985, the Kennedy Foundation engaged an independent contractor to design and implement a reporting system for all grantees participating in the Foundation's Community of Caring Initiative. The system was designed and successfully pre-tested during the first three months of 1985 with all grantees. Since that period, each grantee has submitted regular reports each quarter on several topics. These topics include demographic data on adolescents served in their programs, prenatal services, health outcomes at birth, and a variety of health and social-behavioral outcomes during a one year period following their prior pregnancy. These reports contain aggregate, quantitative data for each program and are not based on client-specific records.

The reporting instrument also solicits information on outreach, professional inservice training, curriculum development and other administrative information at each program. Grantees report this information through responses to a series of qualitative, open-ended questions.

The Kennedy Foundation has used independent consultants and its own staff to periodically validate data submitted by each program during site visits.

The longitudinal study of Community of Caring programs has used several public and private research databases as the basis for comparisons with grantee statistics. These sources primarily include the National Center for Health Statistics periodic Natality Statistics, National Survey of Family Growth, and data collected from a private study of adolescent pregnancy programs in five cities sponsored by the Manpower Demonstration Research Corporation (MDRC) in New York city. The study was entitled "Project Direction" and involved evaluation of services provided by new adolescent pregnancy programs funded by MDRC and established programs located in the same cities as MDRC programs.

HEALTH OUTCOMES OF PREGNANT AND PARENTING ADOLESCENTS

The longitudinal study of Community of Caring programs focuses on five primary health outcomes among adolescents served by Community of Caring grantees. These outcomes include the incidence of fetal alcohol syndrome, low birthweight, the infant death rate, repeat pregnancy within one year after completion of pregnancy and APGAR scores at birth for offspring of teen mothers.

Three of the above outcomes reflect directly on the quality and comprehensiveness of prenatal care provided to pregnant adolescents. These outcomes are the incidence of fetal alcohol syndrome, low birthweight and APGAR scores at birth. Based on nearly two years of data and more than 2600 newborn cases, Community of Caring grantees reported an overall low birthweight rate of 5.94% for all programs. Comparable data for 1984 collected by the National Center for Health Statistics indicated the national low birthweight rate (infants weighing less than 5 pounds 8 ounces) was 10.53% for offspring of mothers below 17 years of age. Community of Caring Resource Training Centers (a subgroup of all current grantees) reported a low birthweight rate similar to the remainder of the program at 6.25%. Table 1 provides this comparative data. The comparisons reflect favorably on Community of Caring program efforts to provide managed clinical care, health education under a values-based approach and nutritional services to each adolescent during pregnancy.

The Community of Caring program evaluation has also analyzed differences in APGAR scores for offspring of adolescent mothers in the Community of Caring program and for all mothers less than 17 years old nationally. APGAR scores measure infant's physical functioning (i.e heartbeat, respiration) amd response to stimuli at birth, specifically at 1 and 5 minutes post-delivery. These scores are recorded on a scale of 1 through 10, with higher scores indicative of higher levels of health. Scores less than 7 reflect infants at potential risk of both psychological and physiological developmental problems later in life. At the lower end of the APGAR scale (i.e. less than 7), Community of Caring infants recorded one-fifth to one-sixth the national rate of high-risk cases. Nationally, nearly 3% of infants born to mothers 17 years or younger recorded scores less than 7, while less than .6% of Community of Caring infants fell into this range at 5 minutes post-delivery. The same general pattern held true for infants receiving scores in the 7-8 range. Community of Caring infants generally recorded relatively higher APGAR scores

RECEIVED
NOV 30 1984

REVIEW OF FIRST YEAR ACCOMPLISHMENTS OF KENNEDY FOUNDATION LEAD TEACHER PROGRAMS

SUBMITTED BY :
THE CENTER FOR HEALTH POLICY STUDIES
COLUMBIA, MARYLAND

NOVEMBER 20, 1984

1. INTRODUCTION

This report constitutes a review of progress made by nine adolescent pregnancy programs who received funding from the Joseph P. Kennedy, Jr. Foundation to implement its Lead Teacher Training Program . This program is part of the Kennedy Foundation's Community of Caring Initiative. The report focuses only on programs who held funds for a full twelve month period between October, 1983 and September, 1984. The TAPAWARE program in Denver, Colorado, was not included in this review, since its start-up occurred in mid-year of grant funding.

The review is intended to summarize progress made by Lead Teacher Programs in the following areas:

1) changes in program enrollment
2) development of inservice training
3) institutional change within programs
4) teaching of values to adolescents
5) outcomes of service among adolescent mothers

In reviewing the results of this report, the reader should understand that the funding received by these programs constituted the first full year of funding by the Foundation. All nine of these programs went on to obtain additional funding for a second year.

2. CONTEXT OF THIS REVIEW

Since this report focuses on first year results, it should not be surprising that the impact of the Lead Teacher Program was manifested to different degrees in the areas listed above. For example, the influence of a single individual lead teacher upon total program enrollment or, for that matter, outcomes of service should not be expected to be as strong as that in the areas of inservice training, institutional change or teaching methods within each program. All of these areas are of long-term interest to the Foundation, however, only the latter three are realistically responsisve to short-term change and the efforts of lead teachers during one year.

Even if large shifts did occur in client enrollment and outcomes, one could not automatically attribute these changes to the efforts of Lead Teachers, at least not without some additional information concerning changes in attitudes, feelings and behavior among the adolescents exposed to staff trained by Lead Teachers in the Community of Caring Curriculum. The experience of adolescent pregnancy programs generally suggests that a great deal of the "marketing" of these programs originates with the clients themselves, hence the importance of data on client feelings toward the programs and data, which by inference at least, substantiates the value of the program to the client via improved self-image, more positive feelings toward one's family, etc. Association of these changes in attitude with enrollment changes might lead to more definitive conclusions about the impact of lead teacher staff training efforts. Similarly, more precise information about client attitudes, feelings, etc. could allow for more plausible explanations of the relationship between lead teacher training activities and program outcomes.

The Kennedy Foundation is planning to launch a project shortly to capture this information via detailed evaluation of changes in client attitudes and behavior prior to and after completing services with Community of Caring programs.

3. SOURCES OF INFORMATION USED IN THIS REVIEW

In carrying out this review, the Center for Health Policy Studies utilized four sources of information. These sources included: quarterly status reports submitted by programs during their first year of funding; client outcome data from the same programs for Year 1 of funding; descriptions of use of the Community of Caring Curriculum; and indepth interviews with lead teachers conducted by faculty at a recent Kennedy Foundation advanced training conference. A summary of the findings of this review is presented in the next section. Tables are attached to the report with data on findings.

4. SUMMARY OF FINDINGS

CLIENT ENROLLMENT. Two aspects of client enrollment were analyzed -- the number of new pregnant adolescents registered in each program and the number of non-pregnant registrants (young men and women only). These figures were reported for the year prior to and during the Kennedy

Foundation grant.

Year to year comparisons of enrollment of pregnant adolescents indicated mixed results in terms of program growth. Four programs recorded increases and four reported declines in enrollment, with one program showing virtually no change. It is important to note that for two relatively new programs, enrollment increased substantially. This note is significant since these programs are ones where one would expect the biggest changes to occur. One would not expect established programs with already heavy caseloads to report substantial increases in enrollment unless major staffing changes had occurred. No major staff additions occurred among these programs, however, staff decreases were reported at certain programs. This may have hindered established programs from accepting new clients or at least maintaining past caseloads.

As for participation by non-pregnant adolescents, sufficient data was not reported to show trends. Neither was it possible to differentiate those who participated in the pre-natal program from those who were involved in the parenting/post-partum phase. Overall, the results of this analysis are mixed also, with most programs showing relatively modest participation by this sub-group of the adolescent population. It is worth noting that traditionally the emphasis of most programs with Foundation funding is upon the pregnant population, hence the findings are somewhat expected. Closer analysis of other data reported by programs suggests that where specific opportunities exist for young fathers and other family members to participate, some programs at least maintained this involvement by comparison with historical data, but most have been able to encourage greater participation during the year that Lead Teacher funds were held. The opportunities that we are referring to here are childbirth preparation classes and coaching during labor. These are areas where programs with Foundation funding should be able to show some impact and they have.

INSERVICE TRAINING. Most lead teachers have made substantial strides in providing indepth training to agency staff, while continuing with their other responsibilities as lead teachers (community outreach and client service). It is interesting to note also the catalytic effect that the lead teacher concept itself and the advance training sessions, particularly, have had on staff in programs sponsoring lead teachers. This effect has been quantified to an extent by figures reported by programs on the number of modules in use before and after advanced training sessions and the number of teachers trained to use the modules before and after these sessions. (See tables at the end of report for these figures). Perhaps the most interesting aspect of these changes is that they have occurred in certain programs that have had the Community of Caring available for use for some considerable time.

In addition to the training of professionals within programs, lead teachers in certain cases have initiated training of other professionals in their local communities. Seven of nine lead teachers began this process during their first year of funding. More than 500 professionals participated in training sessions conducted by lead teachers. It is estimated that these sessions accounted for nearly 1250 professional staff hours of training. Of the groups targetted for training, medical and educational professionals were the most frequent particiapnts in these sessions. Spiritual professionals and voluntary staff were the least likely participants in training exercises.

Four of the seven programs studied had not yet been able to document the extent to which the training time with local professionals had produced some changes in the daily practice of these individuals. Of those that did follow-up, however one found that staff from a neighboring agency had actually drafted an implementation plan following a local training exercise, a second discovered that medical staff lacked more specific information on how to implement the ethical aspects of the curriculum in their hospital and the third program indicated that 30 of an estimated group of 100 community professionals had adopted parts of the Curriculum into their programs following a series of local inservice training workshops. Generally speaking, it was found that lead teacher programs need to place more emphasis on following-up on the impact of inservice training exercises in their communities.

INSTITUTIONAL AND PROGRAM CHANGE. The presence of lead teachers in adolescent pregnancy programs was found to induce programmatic changes of several different types during the first year of funding from the Kennedy Foundation. In fact, some major change was reported in each program sponsoring a lead teacher. These changes have occurred in areas that one would expect programs to make to reinforce the work carried out by its lead teacher and to integrate the major themes of the Community of Caring

Curriculum. For example, 3 out of the 9 programs reported the formation of groups for adolescent fathers since their lead teachers attended the advanced training sponsored by the Foundation. Among those that had already begun programs for fathers prior to the Kennedy Foundation's funding, all reported an increase in the number of fathers involved in their programs. Only 2 programs offered no specific services for fathers in the latest survey of programs.

Traditionally, volunteers have been a difficult group to mobilize in support of the efforts of adolescent pregnancy programs particularly on a regular basis. Since the appearance of a lead teacher in each program, 4 programs have initiated activities to involve volunteers. 3 programs reported already having such activities underway prior to the Foundation's grant, leaving 2 programs without any role for volunteers.

Grandparents constitute another critical support group that Community of Caring programs have sought to engage in their services. The latest survey of programs sponsoring lead teachers indicated that 2 programs had specifically started programs for grandparents since their staff person returned from the first advanced training session for lead teachers. At the end of Year 1 only 2 programs were left without any specific program for grandparents.

Beyond the emphasis placed on teaching values through the Community of Caring Curriculum, perhaps the most distinguishing tangible feature of programs sponsoring lead teachers is their efforts to support adolescents during their initial experience as parents. This is done primarily through parenting and child care services. In the latest review of programs, the Center for Health Policy Studies found that 6 programs had either newly started such services, lengthened the amount of time services are normally provided, or increased the frequency of post-partum contacts with parents, since the return of lead teachers from special training sessions. For example, during the first year of Foundation funding, 5 programs began post-partum services for teenage parents, and one other strengthened its existing services. This left one program without offering any special program for parents, however, this program was found to be relatively new and, not surprisingly, still trying to develop other basic parts of its overall program first.

During a recent survey of programs sponsoring lead teachers, programs were asked to report on the status of the Caring Curriculum's use in their local schools and whether or not this status had changed at all since the receipt of Kennedy Foundation funding. Interestingly, two types of changes were reported. Four programs reported that parts of the Curriculum had been adopted in schools since the appearance of the lead teacher on-site. One program had even reported that the parenting modules of the Curriculum had been certified by the local school system since the grant funding was received from the Foundation. It was clear that the groundwork for this milestone had begun prior to the start-up of lead teacher activities at this program, but the lead teacher initiative itself expedited the process to a degree.

Collectively, the above evidence suggests that the lead teacher concept itself has catalyzed a variety of major changes in programs sponsoring lead teachers. During the first year of funding, local lead teacher initiatives even began to influence changes in the community at large. This evidence is not intended to suggest that the lead teachers themselves are responsible for these events. However, it does appear that the teachers have set in motion, to some extent at least, a chain of events leading to change. The fact that all lead teachers reported regular meetings with their program administrators since returning from their advanced training sessions a year ago suggests that other program staff have possibly played a role in stimulating some of the above changes at more senior levels of decisionmaking in local communities. Obviously, it was not possible to quantify certain intangible changes, such as feelings conveyed toward adolescents by the front-line staff who have been trained by lead teachers in local communities.

METHODS FOR TEACHING VALUES. A central question in the evaluation of the Foundation's Lead Teacher Program and the Community of Caring itself is how effectively the values embodied in the Curriculum are taught to adolescents. Ideally, one should measure the values and attitudes held by adolescents before and after exposure to the Curriculum for this information. As mentioned earlier, an approach comparable to this is being planned by the Foundation in the near future. In the interim, the Foundation attempted recently to gather information from programs and the lead teachers themselves about how the teaching of values to adolescents is done in programs and how other professionals are trained by lead teachers to do this as well. The Foundation expected to determine two things with this approach: 1)whether the teaching of values by programs followed a systematic and reasonable approach as judged by experts in this area; and 2) whether these approaches were adequate in communicating the values of the Curriculum to adolescents. The above information was gathered via structured interviews with lead teachers personally conducted by the Foundation's faculty and rating scales designed to measure the degree of difficulty in teaching values of each Curriculum module. The rating scales were completed by lead teachers at their programs. It is this information which the Center for Health Policy Studies used to evaluate the teaching of values by lead teachers during their first year of fieldwork.

Judging by responses of the lead teachers, the Center for Health Policy Studies has three observations about the work of lead teachers. It is clear that the actual techniques used in advanced training sessions to explore personal values have been introduced into adolescent pregnancy programs by lead teachers. It is also clear that the experience gained during the advanced training sessions has helped greatly to organize the process by which most training concerning values education is done in programs that sponsor lead teachers. Finally, the efforts of lead teachers have resulted in a wide variety of activities that programs use with adolescents to personalize the values embodied in the Curriculum and to express the commitment of each program to these values. If one accepts the premise that teaching by example is one of the most effective methods that professionals can use in this area, then lead teachers have probably been successful in their mission.

Beyond the above observations, it was not possible to quantify how or how well lead teachers teach values or train other professionals to do this with the available data, particularly with respect to individual modules in the Curriculum. Lead teachers did rate the difficulty in teaching the values aspect of each module and the results did show that certain modules are rated consistently as being more difficult than others to teach. The differences in ratings between the most and least difficult modules were not very great. Personal observation of teachers in action would be a more meaningful and reliable mode of evaluation coupled with feedback from adolescents or other professionals trained by lead teachers.

CLIENT OUTCOMES OF SERVICE. The Center for Health Policy Studies hesitates in making conclusions about the impact of lead teacher activities on client outcomes of service for several reasons. One, as mentioned earlier, for all programs studied, it was the first year that programs received funding for their lead teachers. Hence it was clearly a year spent introducing the lead teacher concept itself and gradually remoulding program content to strengthen the emphasis of Curriculum values in each program.

Secondly, the recent request for outcome data from adolescent pregnancy programs was as much a test to see what data programs could produce on short notice as it was an attempt to gain some insight into the impact that lead teachers had in their programs during the first year of funding. In several cases programs were unable to report outcome data for the year prior to the award of the Kennedy Foundation grant thus limiting the conclusions that could be drawn from the data. Finally, comparison data was not available for many indicators reported. The Center offers the following observations with these qualifications in mind.

Early entry into prenatal care is an important indicator for all adolescent pregnancy programs. This is especially true for programs building Communities of Caring given their special emphasis upon personalizing services for adolescents as much as possible and insuring that each teenager's needs are met in a comprehensive manner. Two programs were unable to report any data on this indicator and four others were unable to provide data for the year prior to the Foundation's grant. Of the three programs that did provide data for the period before and after the Foundation's grant, all programs indicated a shift toward earlier entry into prenatal care. Of those programs that only provided data for the grant period, it is interesting to note that most of these programs reported comparable or better "post" period scores than programs reporting complete data.

Several requests for data were made that attempted to measure how well managed female clients were during the prenatal period of service. Data for measures of inadequate weight gain during pregnancy and hospitalizations due to pre-eclampsia were requested. Generally speaking, many programs were unable to report data for pre- and post-periods on the second measure. However on the topic of weight gain during pregnancy, two programs reported no real changes between pre- and post- periods, two others reported slight increases in the percentage of clients with inadequate weight gain while two showed declines in this problem at their programs.

Comparisons of the incidence of low birthweight babies before and after the Kennedy grant were limited due to inadequate reporting. For those that did report this data the results were mixed with almost as many showing decreases as there were increases in the problem.

Two other measures of the general acceptance of programs by clients were taken by measuring the percentage of adolescent mothers who missed their first post-partum appointments and who were enrolled in parenting instruction at three months post-delivery. Both of these measures showed general improvements in acceptance levels over a two year period for those programs that did report this information.

As the reader has observed, inadequacies in reporting primarily limit any conclusions that can be drawn from the data. Perhaps the only conclusion that might be made is that future collection of data from the programs will have to be done by giving much more advance notice and instruction in what data to collect. The Foundation might wish to piggyback on other data collection activities already in place for certain programs with lead teacher funding, such as that used in the past by the Office of Adolescent Pregnancy programs. Certain refinements in instructions and content should be made to the previous OAPP data system.